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Gas Househeating survey: 1980

PRESENT AND PROSPECTIVE HOUSEHEATING CUSTOMERS

AGA
American Gas Association

GAS HOUSEHEATING SURVEY: 1980

33rd Annual Survey
Gas Utility Industry
United States

Househeating Customers, 1980
Unit Additions—Conversions and New Housing, 1980-1981
Gas Utility Customer Restrictions, 1980
Competitive Fuel Prices, 1980

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Contents

		Page
Introduction		v
I.	Executive Summary	1
II.	United States Housing Market in 1980	3
	Existing Housing	3
	New Housing	3
III.	Residential Gas Customers in 1980	6
	Total Residential Customers	6
	Househeating Customers	9
	Gas Househeating Unit Additions	9
	Restrictions	11
	Heating Appliance Data	14
	Gas Consumption Per Unit	14
Appendix 1 -	Househeating Data 1980 Actual and 1981 Anticipated by Company	19
Appendix 2 -	Competitive Fuel Prices	50

List of Tables

Table Number		Page
1	Total U.S. Residential Housing By Heating Fuel, 1976-1980	4
2	Regional Heating Fuels and Market Shares for Residential Housing, 1976-1980	5
3	Residential Housing Completions by Heating Fuel Type, 1976-1980	8
4	Residential and Househeating Customers of Gas Utilities, and 1980 Househeating Unit Additions, by State, as of December 31, 1980	10
5	Househeating Conversions to Natural Gas in 1980 by Type of Fuel	12
6	1981 Anticipated Additions of Gas Househeating Units	13
7	Manufacturers' Shipments of Residential Heating Equipment, 1977-1980	15
8	1980 Average Annual Gas Consumption/Unit by Region	16

Introduction

This report presents the results of the 33rd annual Gas Househeating Survey conducted by the American Gas Association. Data collected for 1980 as well as historical data through 1976 provide a comprehensive portrait of the residential gas market by state and region, including customers, fuel prices, anticipated inventory additions from new homes and conversions, and existing restrictions on new customer hook-ups.

A total of 154 gas utility companies, serving 86% of the nation's residential gas customers, responded to this year's survey. The information provided by these utilities was expanded to obtain the state and national totals shown in Tables 4 and 6. Individual company data are listed by region and state in Appendices 1 and 2. Please note that some tabular data may not add to totals due to rounding.

The American Gas Association wishes to thank those companies who participated in the survey for making this publication possible.

I. Executive Summary

- There were 43.7 million residential gas customers by year-end 1980, an increase of 1.4% over 1979. Of this total approximately 88%, or 38.4 million, were house-heating customers.

- In 1980, no gas company reported a total moratorium on new customer hook-ups. Moreover, the residential hook-up restrictions rate, expressed as the percent of customers served by utilities reporting some form of restriction, including conservation-oriented restrictions, fell to 5% by year-end, down from 11% last year and a high of 51% in 1976.

- The addition of new gas househeating units, including single and multifamily customer units, totalled just under 1.1 million in 1980 to reach a total of 44.4 million gas heated units, or a growth rate of 2.6%. This growth was more than 50% greater than the 1.7% annual growth rate experienced in the 1976 to 1979 period. Of these units 53%, or 583,000 were conversions, while the remaining 47%, or 507,200 were from new housing.

- Conversions from alternative fuels to gas househeating reached 583,000 in 1980, the highest level ever recorded in a single year, and a 60% increase over 1979. Based on survey data, 497,950 or 85% of all heating conversions, were from fuel oil to gas. Regionally, 99% of all conversions in New England were from fuel oil to gas, with the level at 96% in the South Atlantic region, 94% in the Middle Atlantic region, and 72% in the East North Central region. Utility estimates for 1981 indicated that the number of conversions was expected to remain high, reaching almost 400,000 units.

- Natural gas continued to be the leading househeating fuel in the United States, with about 55% of the home heating market in 1980. Fuel oil dropped to 19%, electricity moved up to 18%, while all other fuels (wood, coal, etc.) remained constant at 8%.

- Regionally, gas heated homes were most prevalent in the North Central States, where they had 71% of the market. In the Northeast region, gas increased its share to 40% in 1980, up from 37% in 1976. In all regions except the Northeast, gas had the largest market share of heated homes, and in all regions except the South, gas increased its market share over 1979.

- With the decrease in housing starts from approximately 1.7 million units in 1979 to 1.3 million units in 1980, manufacturers' shipments of residential gas heating equipment also declined. Only gas boiler shipments showed an increase compared to 1979, rising 33% to just under 300,000 units. However, shipments of gas warm air furnaces fell 22%, while total shipments of other gas heating equipment, including wall and floor furnaces fell 5%. Shipments of oil heating equipment showed even greater losses with warm air oil furnaces declining 60%, and oil boilers off 39%.

II. United States Housing Market in 1980

Existing Housing

There were an estimated 80 million occupied housing units in the United States in 1980, a 2% increase over 1979. Of this total, 44.4 million, or 55% were units which used natural gas for heating (see Table 1). A regional breakdown of the 44.4 million gas heated units found 15% in the Northeast, 33% in the North Central, 28% in the South, and 24% in the West.

Between 1976 and 1979 the number of gas househeating units in the United States grew at an annual rate of about 1.7%, a growth rate restrained primarily by the prevalence of new gas hook-up restrictions which limited or set conditions for residential load growth. However, the 1980 figure of 44.4 million gas heated units was a 2.6% increase over the 1979 total, indicating that the gas industry is recovering from a period of limited marketing and marginal growth.

As a percentage of total homes, electrically heated units continued to increase, moving from 17% in 1979 to 18% in 1980, while surpassing 14 million in number. This is an average annual increase of 8.5% since 1976. The number of units heated with fuel oil continued to decline, falling to 15.4 million in 1980, or 19% of the total. The number of homes heated by other fuels (wood, coal, solar, etc.) has maintained a steady 8-9% market share for the past 5 years, totalling just over 6.2 million units in 1980.

Regionally, gas heated homes are most prevalent in the North Central States, where they had 71% of the market. In the Northeast region, where oil heated homes are dominant, gas increased its market share to 40% in 1980 (see Table 2), up from 37% in 1976. In all regions except the Northeast, gas had the largest market share of heated homes, and in all regions except the South, gas increased its market share over 1979.

New Housing

Natural gas had traditionally added the majority of new customers through new housing construction. However, the recent sharp downturn in new home and apartment construction has limited market growth.

According to the National Association of Home Builders, the housing industry is experiencing its worst slump in history[1/] as

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[1] Source: National Association of Home Builders, Economic News Notes, July 1981, Volume XXVII.

Table 1

TOTAL U.S. RESIDENTIAL HOUSING BY HEATING FUEL
1976-1980
(Thousands of Occupied Units[a])

	Actual				Estimate	
	1976	1977	1978	1979	1980	1980 Market Share
United States	74,005	75,279	77,167	78,572	80,150	100
Gas	41,218	41,543	42,522	43,322	44,450	55
Electric	10,151	11,146	12,258	13,244	14,050	18
Oil[b]	16,451	16,059	16,072	15,708	15,400	19
Other[c]	6,185	6,531	6,315	6,298	6,250	8

a Units include both single and multifamily.

b Oil includes kerosene.

c Other includes LP gas, coal, wood, solar, and none.

Source: U.S. Bureau of the Census, Annual Housing Survey: General Housing Characteristics, 1976-1979. A.G.A. estimate for 1980 derived by adding number of dwellings completed by fuel type, as reported by U.S. Bureau of Census, Construction Reports - Series C-25, to 1979 actual data, considering also the net gains and losses as a result of fuel switching and demolitions.

Table 2

REGIONAL HEATING FUELS AND
MARKET SHARES FOR RESIDENTIAL HOUSING,
1976-1980
(Thousands of Occupied Units[a])

Region and Fuel	Actual				Estimate	
	1976	1977	1978	1979	1980	1980 Market Share
Northeast	16,544	16,637	16,952	17,123	17,450	100
Gas	6,140	6,151	6,301	6,558	6,900	40
Electric	846	958	999	1,109	1,150	7
Oil[b]	9,161	9,103	9,253	9,056	9,000	51
Other[c]	397	425	399	400	400	2
North Central	19,723	19,856	20,171	20,565	20,800	100
Gas	13,803	13,893	14,140	14,428	14,750	71
Electric	1,366	1,506	1,685	1,864	1,950	9
Oil[b]	3,004	2,843	2,817	2,724	2,600	13
Other[c]	1,550	1,614	1,529	1,549	1,500	7
South	23,741	24,379	25,094	25,585	26,250	100
Gas	11,449	11,577	11,956	12,054	12,300	47
Electric	5,498	6,033	6,561	7,074	7,600	29
Oil[b]	3,488	3,335	3,263	3,191	3,100	12
Other[c]	3,306	3,434	3,314	3,266	3,250	12
West	13,997	14,407	14,950	15,299	15,650	100
Gas	9,826	9,922	10,125	10,283	10,500	67
Electric	2,441	2,649	3,013	3,197	3,350	21
Oil[b]	798	778	739	737	700	5
Other[c]	932	1,058	1,073	1,082	1,100	7

[a] Units include both single and multifamily.

[b] Oil includes kerosene.

[c] Other includes LP gas, coal, wood, solar, and none.

Source: U.S. Bureau of the Census, Annual Housing Survey: General Housing Characteristics; 1976-1979. A.G.A. estimate for 1980 derived by adding number of dwellings completed by fuel type, as reported by U.S. Bureau of Census, Construction Reports - Series C-25, to 1979 actual data, considering also the net gains and losses as a result of fuel switching and demolitions.

1980 starts fell to just under 1.3 million units, a 26% decline from 1979 (see Figure 1). Construction of single family homes dropped almost 29% to 850,000, while the construction of multi-family units fell 20% to 440,000.

Wharton Econometric Forecasting Associates (WEFA) predicted that 1981 starts would fall to under 1.2 million units, a forecast supported by Bureau of Census data which showed housing starts of just over 1 million through November 1981.[2] However, WEFA expects the housing market to begin a gradual recovery over the following two years, with starts nearing 1.7 million in 1983.

The housing industry slump is further evidenced by a decline in the number of unit completions[3], which lag housing starts by about 6 months, to 1.5 million in 1980, a decrease of 20% compared to 1979 (see Table 3). However, over the same period gas' share of new units actually rose from 35% to 37%, while the percentage of new units using fuel oil fell from 6% to 3%. Electricity maintained a steady 56% share, while units using other fuels increased from 3% to 4%. Strong competition from electricity, especially the electric heat pump, and moratoria on new hook-ups, have prevented gas heating from regaining the dominant position in the new housing market it held in the 1960s and early 1970s. However, renewed marketing efforts by gas utilities, increased supply availability, reduction of restrictions and the introduction of new, high efficiency gas furnaces and boilers, with seasonal efficiencies of up to 96%, as compared with 60% for conventional equipment, will enable gas to compete effectively against electricity in the future.

III. Residential Gas Customers in 1980

Total Residential Customers

With net additions of 592,800, the total number of gas customers[4] topped the 43.7 million mark in 1980, a 1.4% increase

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[2] Source: U.S. Department of Commerce, Bureau of Census, Construction Reports - Housing Starts, November 1981, Series C-20.

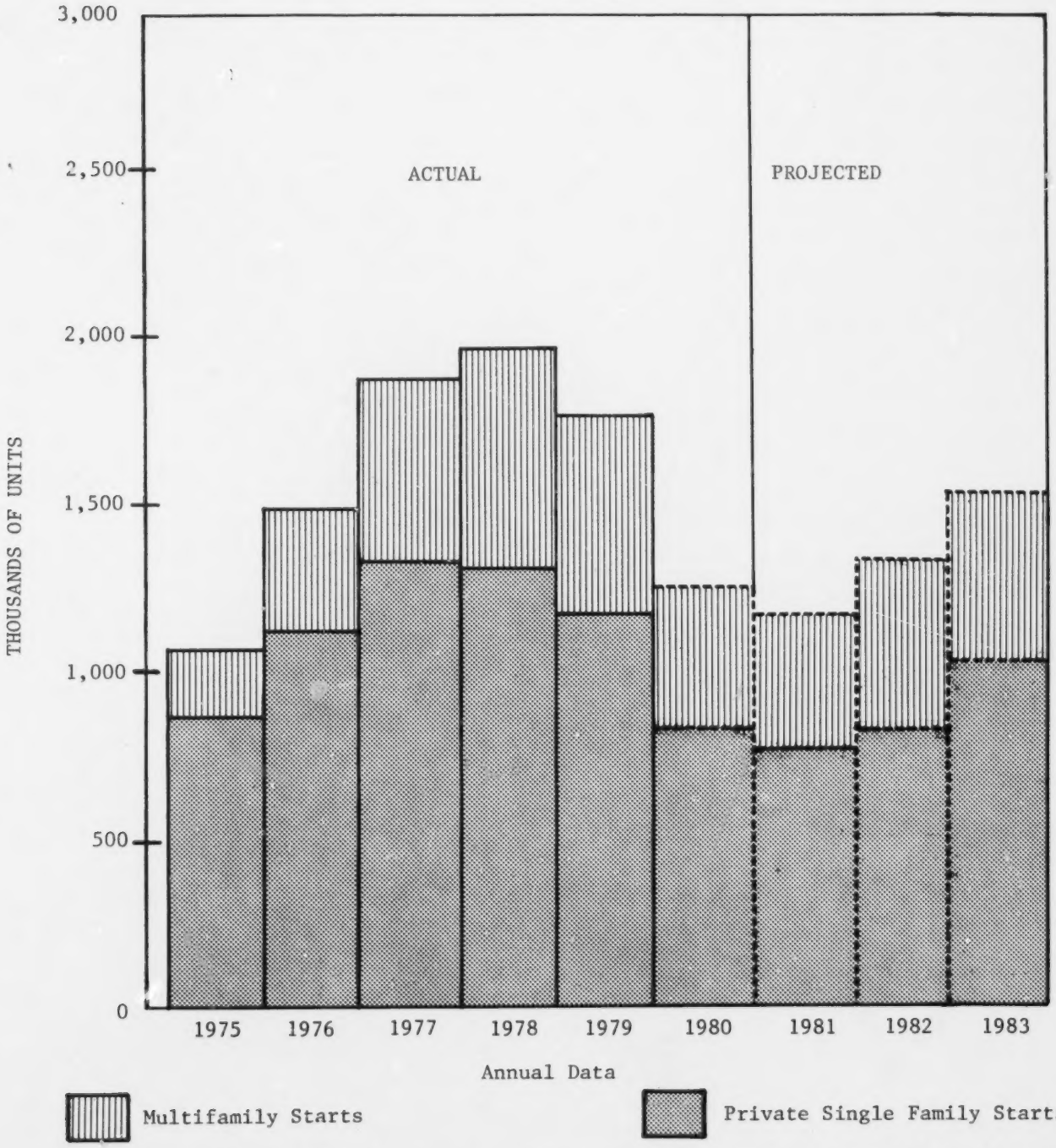
[3] A house is defined as completed when all finished flooring has been installed (or carpeting if used in the place of finished flooring). If the building is occupied before all construction is finished, it is classified as completed at the time of occupancy. In privately owned buildings with two or more units, all the units are counted as completed when 50% or more are occupied or available for occupancy.

[4] At most utilities a residential customer is defined as an individual or organization purchasing gas for domestic purposes (heating, cooking) at one location under one rate classification, i.e., a meter represents a single customer.

Figure 1

NEW RESIDENTIAL HOUSING STARTS ACTUAL AND PROJECTED

1975-1983



Source: Actual--U.S. Bureau of the Census, Construction Reports-Series C20, Housing Starts

Projected--Wharton Econometric Forecasting Associates, Control Forecast - Sectoral Analysis, October, 1981.

Table 3

RESIDENTIAL HOUSING COMPLETIONS BY HEATING FUEL TYPE 1976-1980
(Thousands)

Heating Fuel Type	1980		1979		1978		1977		1976	
	Number	%	Number	%	Number	%	Number	%	Number	%
Total Completions[a]	1,502	100	1,870	100	1,869	100	1,657	100	1,376	100
Electricity	844	56	1,048	56	1,049	56	896	54	701	51
Gas	559	37	662	35	642	35	591	36	520	38
Oil	41	3	113	6	133	7	138	8	134	10
Other or None	58	4	47	3	45	2	32	2	21	1

a/ Includes both single and multifamily units

Source: Bureau of Census, Characteristics of New Housing: C25-13, 1976-1980.

over 1979 (see Table 4). Two regions, the North Central with 261,800 new customers and the South with 189,600 new customers accounted for 76% of all new residential customer additions.

Househeating Customers

About 38.4 million, or 87.8% of all 1980 residential customers were househeating customers, an increase in the househeating/total residential customer ratio of 1.0 percentage point over 1979. In spite of the slowdown in the housing industry, househeating customer net additions totalled 947,800 in 1980. This included existing gas baseload customers who converted their heating system to gas, as well as customers added through new construction and conversions from alternative fuels. The strength of the conversion trend, a steadily improving gas supply picture, and the lessening of hook-up restrictions, have all played important roles in improving the gas househeating market in 1980.

Gas Househeating Unit Additions

The gas industry added almost 1.1 million househeating units in 1980 (see Table 4), a 14% increase over 1979. Of total additions, 47% or 507,200 were from new housing,[5] a decrease in actual units from 1979 due to the decline in the housing industry. However, the sunbelt states continued to grow, with the West region alone accounting for 42% of new househeating unit additions.

In 1980, 583,034 housing units were converted from an alternative fuel to natural gas (see Table 4), the highest level of conversions reported in a single year. This represents a 60% increase over the 1979 level of 365,400 conversions. Due to the intense consumer demand for conversions which began in 1979 and continued through 1980, the actual number of 1980 conversions exceeded the 1979 forecast of 382,900, made by responding companies in early 1980, by 52%. The record number of conversions was 53% of all additions to inventory in 1980, up from 38% in 1979, due to both the dramatic increase in conversions, and a decrease in new housing completions in 1980.

In keeping with past trends, the New England, Middle Atlantic and East North Central regions, where 70% of all oil customers are located, contributed the majority of conversions: 440,000 in 1980, or about 76% of the total.

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[5] Because of inconsistencies in the definition of a completed housing unit (used by the Bureau of the Census) and an on-line gas customer (used by a gas utility), the number of gas heated housing units added from new construction reported in the survey does not match the Census figures shown in Table 3.

Table 4

RESIDENTIAL AND HOUSEHEATING CUSTOMERS OF GAS UTILITIES,
AND 1980 HOUSEHEATING UNIT ADDITIONS,
BY STATE, AS OF DECEMBER 31, 1980

(Thousands)

Region, Division, and State	Residential Customers			1980 Househeating Unit Additions From New Housing and Conversions				
	Total	House Heating	Percent Heating	Total (100%)	New Housing Number	New Housing (%)	Conversions Number	Conversions (%)
UNITED STATES	43,718.2	38,378.0	87.8	1,090.2	507.2	47	583.0	53
NORTHEAST	9,101.9	5,508.4	60.5	311.1	35.4	11	275.7	89
New England	1,617.4	1,020.3	63.1	72.9	9.4	13	63.5	87
Connecticut	375.1	219.2	58.4	18.5	2.5	14	16.0	86
Maine	12.9	6.7	51.9	2.2	0.2	9	2.0	91
Massachusetts	1,008.8	640.2	63.5	40.7	5.5	14	35.2	86
New Hampshire	49.4	39.4	79.8	2.8	0.2	7	2.6	93
Rhode Island	157.1	103.2	65.7	7.7	0.8	10	6.9	90
Vermont[a]	14.1	11.6	82.3	1.0	0.2	20	0.8	80
Middle Atlantic	7,484.5	4,488.1	60.0	238.2	26.0	11	212.2	89
New Jersey	1,692.0	954.9	56.4	86.3	6.2	7	80.1	93
New York[a]	3,569.2	1,728.7	48.4	94.8	8.9	8	86.8	92
Pennsylvania	2,223.3	1,804.5	81.2	57.1	11.8	21	45.3	79
NORTH CENTRAL	13,860.2	12,926.5	93.3	304.5	111.2	37	193.3	63
East North Central	10,077.7	9,284.7	92.1	241.2	76.3	32	164.9	68
Illinois	3,073.1	2,639.8	85.9	73.6	21.5	29	52.1	71
Indiana	1,155.5	1,067.7	92.4	27.8	3.5	13	24.3	87
Michigan	2,300.0	2,189.4	95.2	63.5	24.6	39	38.9	61
Ohio	2,572.5	2,434.8	94.5	36.9	18.2	49	18.7	51
Wisconsin	976.6	853.0	87.3	39.4	8.5	22	30.9	78
West North Central	3,782.9	3,641.8	96.3	63.3	34.9	55	28.4	45
Iowa	681.4	648.6	95.2	6.3	4.6	73	1.7	27
Kansas	656.9	654.8	99.7	7.2	6.8	94	0.4	6
Minnesota	751.8	705.5	93.8	32.4	11.2	35	21.2	65
Missouri	1,133.0	1,090.0	96.2	6.8	3.4	50	3.4	50
Nebraska	389.1	380.1	97.7	8.7	7.8	90	0.9	10
North Dakota	77.7	72.5	93.3	b	b	b	b	b
South Dakota	93.0	90.3	97.1	1.9	1.1	58	0.8	42
SOUTH	10,754.3	10,301.7	95.8	237.7	146.2	62	91.5	38
South Atlantic	3,751.9	3,352.7	89.4	139.6	56.7	41	82.9	59
Delaware	77.4	52.5	67.8	1.4	b	b	1.4	b
Dist. of Columbia	133.6	92.3	69.1	19.6	0.6	3	19.0	97
Florida	408.4	376.3	92.1	11.2	9.6	86	1.6	14
Georgia	949.5	947.7	99.8	32.4	30.8	95	1.6	5
Maryland	725.4	554.1	76.4	25.4	2.8	11	22.6	89
North Carolina	338.9	302.0	89.1	13.8	3.2	23	10.6	77
South Carolina	272.0	262.2	96.4	5.9	3.2	54	2.7	46
Virginia	483.9	407.7	84.3	27.6	4.4	16	23.2	84
West Virginia	362.8	357.9	98.6	2.3	2.1	91	0.2	9
East South Central	2,010.9	1,981.6	98.5	22.5	18.1	80	4.4	20
Alabama	618.3	618.3	100.0	7.8	7.4	95	0.4	5
Kentucky	574.2	566.8	98.7	4.5	2.1	47	2.4	53
Mississippi[a]	367.6	367.6	100.0	3.9	3.4	87	0.5	13
Tennessee	450.8	428.9	95.1	6.3	5.2	82	1.1	18
West South Central	4,991.5	4,967.4	99.5	75.6	71.4	94	4.2	6
Arkansas	426.2	426.2	100.0	b	b	b	b	b
Louisiana	914.4	911.3	99.9	4.2	4.0	95	0.2	5
Oklahoma	738.4	732.0	99.1	17.7	15.5	88	2.2	12
Texas[a]	2,912.5	2,895.9	99.4	53.7	51.9	97	1.8	3
WEST	10,001.4	9,641.4	96.4	236.9	214.4	90	22.5	10
Mountain	2,483.7	2,438.8	98.2	71.1	68.7	96	2.6	4
Arizona	543.6	518.4	95.4	11.1	10.8	97	0.3	3
Colorado	746.9	746.9	100.0	24.4	24.4	b	b	b
Idaho	98.8	86.7	87.8	3.4	1.8	53	1.6	47
Montana	164.1	163.4	99.6	b	b	b	b	b
Nevada	163.5	157.2	96.1	9.5	9.5	b	b	b
New Mexico	300.1	299.7	99.9	8.0	7.7	96	0.3	4
Utah[a]	354.8	354.8	100.0	11.2	11.2	b	b	b
Wyoming	111.9	111.7	99.8	3.7	3.3	89	0.4	11
Pacific	7,517.7	7,202.6	95.8	165.6	145.7	88	19.9	12
Alaska	37.0	36.5	98.6	2.9	1.0	34	1.9	66
California	6,853.5	6,592.5	96.2	137.8	136.2	99	1.6	1
Hawaii[a]	29.0	0	0	b	b	b	b	b
Oregon	259.8	242.3	93.3	12.5	4.7	38	7.8	62
Washington[a]	338.4	331.3	97.9	12.4	3.8	31	8.6	69

[a] Data not strictly comparable to 1979 due to a change in reporting.

[b] Insufficient data.

For the first time, 1980 respondents to the Gas Househeating Survey were asked to provide a breakdown of conversions by fuel type (see Table 5). The utilities providing data in this category represented 78% of total 1980 conversions. Based on these data, 497,950 units or 85% were from fuel oil to gas, propane followed with 35,440 units (6%), while electricity and other (e.g., coal, wood, etc.) accounted for 26,387 units (5%) and 23,257 units (4%), respectively. Regionally, 99% of all conversions in New England were from fuel oil to gas, with the level at 96% in the South Atlantic region, 94% in the Middle Atlantic region, and 72% in the East North Central region.

Each year survey respondents are asked to project additions to the househeating inventory for the following year from both new construction and conversions (see Table 6). The results indicated that in 1981 utilities expected to add approximately 394,500 conversions, 43% of total anticipated 1981 additions. The estimate for newly constructed units was 513,200, up slightly from 1980. Even though conversions were expected to level-off as compared to the record 1980 figure, the 1981 estimate of almost 400,000 is still extremely high when compared to recent industry trends, and comparable to levels achieved during the industry growth period of the 1960s.

Restrictions

The level of restrictions on new customers,[6/] which only a few years ago severely limited growth in the residential gas market, fell to 5% by year-end 1980, down from a high of 51% in 1976. Moreover, the most critical type of restriction, a complete prohibition on new customer hook-ups, had completely disappeared by year-end 1980.

In all, 29 utilities reported some kind of restriction in 1980. However, 10 of these were conservation-oriented, requiring that a housing unit meet certain thermal integrity standards, such as approved insulation, prior to the commencement of gas service. Further, it is important to note that while a utility may have reported a "restriction" for 1980, it may not have prevented the utility from adding new customers. For example, if the utility was restricted to adding residential customers "based on supply conditions," and an ample supply existed (as was the case in 1980 in most states), the utility could be permitted to add new customers.

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6 The level of restrictions is defined as the ratio (expressed as a percent) of the number of gas househeating customers served by utilities with some form of restriction to the total number of gas househeating customers.

Table 5

HOUSEHEATING CONVERSIONS TO NATURAL GAS IN 1980 BY TYPE OF FUEL

Region	Oil		Propane		Electricity		Other[a]		Total
	Units	%	Units	%	Units	%	Units	%	
United States	497,950	85	35,440	6	26,387	5	23,257	4	583,034
New England	62,818	99	125	b	400	b	132	b	63,475
Middle Atlantic	198,962	94	316	b	10,828	5	2,094	1	212,200
East North Central	118,678	72	22,229	13	6,542	4	17,486	11	164,935
West North Central	16,837	59	9,434	33	919	4	1,196	4	28,386
South Atlantic	79,404	96	985	1	2,131	3	408	b	82,928
East South Central	2,428	55	600	14	1,188	27	195	4	4,411
West South Central	36	b	1,281	31	1,543	37	1,310	32	4,170
Mountain	1,605	61	254	10	438	17	320	12	2,617
Pacific	17,182	86	216	2	2,398	12	116	b	19,912

a Other includes conversions from coal, wood, etc.

b Less than 1%

Table 6

1981
ANTICIPATED ADDITIONS
OF GAS HOUSEHEATING UNITS

(Thousands)

Region, Division, and State	Total (100%)	New Housing		Conversions	
		Number	(%)	Number	(%)
UNITED STATES	907.7	513.2	57	394.5	43
NORTHEAST	185.6	30.0	16	155.6	84
New England	20.6	3.7	18	16.9	82
Connecticut	17.6	3.1	18	14.5	82
Maine	0.2	0.2	b	b	b
Massachusetts	b	b	b	b	b
New Hampshire	2.2	0.2	9	2.0	91
Rhode Island	b	b	b	b	b
Vermont	0.6	0.2	33	0.4	67
Middle Atlantic	165.0	26.3	16	138.7	84
New Jersey	66.0	6.0	9	60.0	91
New York	52.4	6.6	13	45.8	87
Pennsylvania	46.6	13.7	29	32.9	71
NORTH CENTRAL	232.8	111.7	48	121.1	52
East North Central	195.2	86.1	44	109.1	56
Illinois	57.3	24.2	42	33.1	58
Indiana	24.1	3.1	13	21.0	87
Michigan	62.6	34.7	55	27.9	45
Ohio	31.3	15.3	49	16.0	51
Wisconsin	19.9	8.8	44	11.1	56
West North Central	37.6	25.6	68	12.0	32
Iowa	4.6	3.7	80	0.9	20
Kansas	0.4	b	b	0.4	b
Minnesota	17.2	9.6	56	7.6	44
Missouri	6.3	4.2	67	2.1	33
Nebraska	8.1	7.6	94	0.5	6
North Dakota	b	b	b	b	b
South Dakota	1.0	0.5	50	0.5	50
SOUTH	240.5	141.6	59	98.9	41
South Atlantic	150.4	58.9	39	91.5	61
Delaware	0.2	b	b	0.2	b
Dist. of Columbia	15.6	0.6	4	15.0	96
Florida	12.1	10.5	87	1.6	13
Georgia	33.6	31.9	95	1.7	5
Maryland	32.8	3.7	11	29.1	89
North Carolina	13.7	2.9	21	10.8	79
South Carolina	b	b	b	b	b
Virginia	39.1	6.2	16	32.9	84
West Virginia	3.3	3.1	94	0.2	6
East South Central	23.7	19.6	83	4.1	17
Alabama	7.4	6.9	93	0.5	7
Kentucky	6.3	4.3	68	2.0	32
Mississippi	3.6	3.1	86	0.5	14
Tennessee	6.4	5.3	83	1.1	17
West South Central	66.4	63.1	95	3.3	5
Arkansas	b	b	b	b	b
Louisiana	3.9	3.6	92	0.3	8
Oklahoma	16.4	15.5	95	0.9	5
Texas	46.1	44.0	95	2.1	5
WEST	248.8	229.9	92	18.9	8
Mountain	75.3	73.0	97	2.3	3
Arizona	10.4	10.1	97	0.3	3
Colorado	23.3	23.3	b	b	b
Idaho	3.2	1.6	50	1.6	50
Montana	b	b	b	b	b
Nevada	10.5	10.5	b	b	b
New Mexico	6.2	6.0	97	0.2	3
Utah	19.0	19.0	b	b	b
Wyoming	2.7	2.5	93	0.2	7
Pacific	173.5	156.9	90	16.6	10
Alaska	2.9	1.4	48	1.5	52
California	146.8	145.6	99	1.2	1
Hawaii	b	b	b	b	b
Oregon	13.7	5.4	39	8.3	61
Washington	10.1	4.5	45	5.6	55

b Insufficient data.

Of the 29 companies reporting restrictions, 16 were in the North Central region (most conservation-oriented restrictions were also in this region), while the South and Northeast regions followed with 7 and 6, respectively. There were no reported restrictions in the West region.

Heating Appliance Data

With the decrease in housing starts, manufacturers' shipments of residential gas heating equipment also declined (see Table 7). Only gas boiler shipments showed an increase compared to 1979, jumping 33% to just under 300,000 units, which is consistent with the record number of conversions in 1980. The shipment of gas warm air furnaces fell 22%, while total shipments of other gas heating equipment, including wall and floor furnaces, fell 5%.

Shipments of oil heating equipment, which have declined dramatically over the past 2 years, continued their downward slide with oil warm air furnaces dropping 60% and oil boilers falling 39%. After growing steadily for several years, the demand for electric heating equipment fell for the second straight year, with heat pump shipments off 23% in 1980.

Gas Consumption Per Unit

Respondents to the 1980 survey were asked to estimate the average annual gas consumption for both single and multifamily dwellings. Utilities representing 80% of all gas househeating customers responded to this portion in the 1980 survey. These responses were then used to develop the U.S. and regional average estimates of per unit gas use. Both categories were weighted by the number of residential gas customers for each responding utility in each state. In addition, the multifamily data represented a weighted average of dwellings with 2-4 units, and dwellings with 5 or more units (see Table 8).

Due to changes in the reporting methods of some utilities, particularly in the definition of baseload gas use, comparisons of the data from year to year to track the absolute change in consumption patterns are questionable. For example, a change in the definition of multifamily units in the South resulted in a different weight used for single versus multifamily consumption for the 1980 data compared to the 1979 data. The combined average heating consumption for the South therefore, appeared to have increased slightly from 1979, although the average consumption for a single family home and a multifamily unit actually decreased from 1979. However, a comparison of 1979 and 1980 combined average consumption data (U.S. average weighted by customer and dwelling type) indicated that per unit gas consumption for househeating fell from 87.3 Mcf in 1979 to 82.6 Mcf in 1980, a drop of 5.4%. Baseload consumption also declined by 5.7%, from 35.4 Mcf

Table 7

MANUFACTURERS' SHIPMENTS OF
RESIDENTIAL HEATING EQUIPMENT, 1977-1980

Category	1977	1978	1979	1980	Percentage Change from 1979
Central Heating Equipment					
Warm Air Furnaces					
Gas	1,508,100	1,636,100	1,862,600	1,445,700	- 22
Oil[a]	228,265	263,000	157,800	63,700	- 60
Electricity	311,140	349,300	283,200	227,400	- 20
Boilers					
Gas	113,100	125,900	221,300	293,300	+ 33
Oil[a]	134,200	108,046	85,059	51,672	- 39
Heat Pumps	481,572	560,075	547,694	422,829	- 23
Other Gas Heating Equipment	198,920	199,190	207,000	199,390	- 4
Wall Furnaces	198,920	199,190	207,000	199,390	- 4
Floor Furnaces	23,890	18,070	15,560	12,240	- 21

a Data not expanded.

Source: Gas Appliance Manufacturers Association
Heat Pumps: Air Conditioning and Refrigeration Institute

Table 8

1980 AVERAGE ANNUAL
GAS CONSUMPTION/UNIT[a]
BY REGION
(Mcf)

Region	Single Family	Multifamily[b]	Combined Average[c]
Northeast			
Heating	114.0	73.9	95.9
Baseload	43.4	31.4	38.0
Total	157.4	105.3	133.9
North Central			
Heating	120.5	76.6	111.2
Baseload	35.2	28.2	33.7
Total	155.7	104.8	144.9
South			
Heating	72.2	51.6	69.6
Baseload	29.6	27.7	29.3
Total	101.8	79.3	98.9
West			
Heating	62.5	29.6	50.3
Baseload	34.5	25.6	31.2
Total	97.0	55.2	81.5
U.S. Average			
Heating	92.1	57.0	82.6
Baseload	35.5	27.9	33.4
Total	127.6	84.9	116.0

a/ Results for 1980 are based on responses from 173 different markets, a larger sample than 1979.

b/ Weighted average of dwellings containing 2-4 units and dwellings containing 5 units or more.

c/ Weighted by customer and dwelling type.

in 1979 to 33.4 Mcf in 1980. In single family dwellings gas consumption for househeating fell 4.6%, from an average of 96.5 Mcf per unit in 1979, to 92.1 Mcf in 1980. These data provide further evidence that energy conservation is continuing in the residential gas market.

Climatic conditions have the most significant impact on gas used for househeating purposes, but the size and thermal integrity of the structure must also be considered. As a result, per unit gas consumption for househeating was highest in the North Central region at 120.5 Mcf, and lowest in the West region at 62.5 Mcf. Gas consumption for househeating in multifamily dwellings followed a similar pattern with per unit consumption in the North Central region at 76.6 Mcf, while falling to a low of 29.6 Mcf in the West region.

Gas consumption for baseload, which will vary with the size and type of appliances in the unit, also differed by region. For single family dwellings, baseload consumption was lowest in the South region at 29.6 Mcf, and highest in the Northeast region at 43.4 Mcf. Baseload consumption for multifamily dwellings ranged from 25.6 Mcf in the West to 31.4 Mcf in the Northeast.

APPENDIX 1

HOUSEHEATING DATA
1980 ACTUAL AND 1981 ANTICIPATED
BY COMPANY

This Appendix presents gas househeating data obtained from a survey of 154 companies on a regional, state and company-by-company basis. Column 1 of the Appendix shows reported residential and househeating customers (a gas customer is equal to a meter, while a househeating unit is the actual residence which uses gas for spaceheating). Column 2 provides average baseload and heating consumption per customer, and the number of heating degree days. (A heating degree day is a measure of the coldness of the weather, based on the extent to which the daily mean temperature falls below a reference temperature, usually 65°F). Column 3 shows the percentage of total dwelling units in the franchise area that are served by gas for househeating. Column 4 summarizes reported househeating unit additions for 1980 and anticipated for 1981, broken down into additions from new construction, conversions, losses and net additions. In some cases, a change in methodology may result in inconsistent annual data for an individual utility.

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
NEW ENGLAND									
CONNECTICUT									
SOUTHERN CONNECTICUT GAS CO.					1980	580	4,360	300	4,640
ALL RESIDENTIAL	121,097		30.0	28	1981	500	4,400	200	4,700
HOUSEHEATING ONLY	67,698	110.0							
HEATING DEGREE DAYS		5,670							
CONNECTICUT NATURAL GAS CORP					1980	858	7,842	50	8,650
ALL RESIDENTIAL	112,397		39.5	33	1981	1,700	7,000	100	8,600
HOUSEHEATING ONLY	71,824	134.5							
HEATING DEGREE DAYS		6,442							
NORTHEAST UTILITIES					1980	1,056	3,525	NA	NA
ALL RESIDENTIAL	135,507		32.0	20	1981	850	2,820	NA	NA
HOUSEHEATING ONLY	74,394	100.0							
HEATING DEGREE DAYS		6,455							
NEW ENGLAND									
MASSACHUSETTS									
BOSTON GAS COMPANY					1980	1,223	17,428	NA	NA
ALL RESIDENTIAL	447,720		NA	30	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	216,344	NA							
HEATING DEGREE DAYS		6,057							
CAPE COD GAS COMPANY					1980	592	NA	NA	NA
ALL RESIDENTIAL	33,644		NA	25	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	27,961	100.0							
HEATING DEGREE DAYS		6,494							
COMMONWEALTH GAS CO.					1980	1,100	6,895	68	7,927
ALL RESIDENTIAL	135,611		35.0	32	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	104,761	125.0							
HEATING DEGREE DAYS		6,500							
FALL RIVER GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	36,027		18.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	29,240	110.0							
HEATING DEGREE DAYS		6,479							
LOWELL GAS COMPANY					1980	942	707	92	1,557
ALL RESIDENTIAL	44,794		45.0	95	1981	900	707	90	1,517
HOUSEHEATING ONLY	38,802	106.0							
HEATING DEGREE DAYS		6,328							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
NEW ENGLAND									
MASSACHUSETTS									
BAY STATE GAS CO.					1980	879	5,711	NA	NA
ALL RESIDENTIAL	179,321		63.2	43	1981	268	5,025	NA	NA
HOUSEHEATING ONLY	117,287	108.1							
HEATING DEGREE DAYS		6,318							
HAVERHILL GAS COMPANY					1980	200	800	0	1,000
ALL RESIDENTIAL	26,338		20.0	30	1981	250	850	0	1,100
HOUSEHEATING ONLY	18,076	120.0							
HEATING DEGREE DAYS		7,409							
NEW ENGLAND									
MAINE									
NORTHERN UTILITIES INC					1980	200	2,000	NA	NA
ALL RESIDENTIAL	12,933		22.0	1	1981	200	NA	NA	NA
HOUSEHEATING ONLY	6,709	84.9							
HEATING DEGREE DAYS		7,702							
NEW ENGLAND									
NEW HAMPSHIRE									
CONCORD NAT GAS CORP					1980	30	345	0	375
ALL RESIDENTIAL	5,684		20.0	58	1981	30	182	NA	NA
HOUSEHEATING ONLY	3,306	130.0							
HEATING DEGREE DAYS		7,904							
MANCHESTER GAS COMPANY					1980	0	601	NA	NA
ALL RESIDENTIAL	13,827		37.0	28	1981	0	461	NA	NA
HOUSEHEATING ONLY	8,789	120.0							
HEATING DEGREE DAYS		6,474							
NORTHERN UTILITIES INC.					1980	100	500	NA	NA
ALL RESIDENTIAL	7,270		30.0	12	1981	100	500	NA	NA
HOUSEHEATING ONLY	6,015	75.5							
HEATING DEGREE DAYS		7,702							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
NEW ENGLAND									
RHODE ISLAND									
VALLEY GAS COMPANY					1980	35	2,199	150	2,084
ALL RESIDENTIAL	42,826		50.0	62	1981	30	1,230	150	1,110
HOUSEHEATING ONLY	28,676	100.0							
HEATING DEGREE DAYS		6,718							
NEW ENGLAND									
VERMONT									
VERMONT GAS SYSTEMS					1980	130	NA	127	NA
ALL RESIDENTIAL	10,845		36.2	NA	1981	100	NA	120	NA
HOUSEHEATING ONLY	8,771	112.9							
HEATING DEGREE DAYS		7,715							
MIDDLE ATLANTIC									
NEW JERSEY									
SOUTH JERSEY GAS CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	117,113		39.6	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	85,864	124.5							
HEATING DEGREE DAYS		4,874							
NEW JERSEY NATURAL GAS CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	209,572		42.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	153,555	94.0							
HEATING DEGREE DAYS		5,833							
PUBLIC SERVICE ELECT. & GAS					1980	6,170	80,075	141	86,104
ALL RESIDENTIAL	1,186,557		35.0	52	1981	6,000	60,000	150	65,850
HOUSEHEATING ONLY	628,031	116.0							
HEATING DEGREE DAYS		5,256							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
MIDDLE ATLANTIC									
NEW YORK									
BROOKLYN UNION GAS COMPANY					1980	2,000	53,000	1,500	53,500
ALL RESIDENTIAL	1,032,532		45.0	37	1981	1,000	36,600	1,500	36,100
HOUSEHEATING ONLY	293,598	104.0							
HEATING DEGREE DAYS		4,471							
CENTRAL HUDSON GAS AND E					1980	200	1,545	100	1,645
ALL RESIDENTIAL	41,304		55.0	14	1981	200	1,300	100	1,400
HOUSEHEATING ONLY	24,581	75.0							
HEATING DEGREE DAYS		6,690							
CONSOLIDATED EDISON					1980	430	5,700	NA	NA
ALL RESIDENTIAL	1,022,597		41.0	40	1981	400	NA	NA	NA
HOUSEHEATING ONLY	148,030	118.0							
HEATING DEGREE DAYS		5,061							
NATIONAL FUEL GAS DIST. CORP					1980	1,507	5,113	517	6,103
ALL RESIDENTIAL	455,965		48.0	90	1981	1,800	5,215	500	6,515
HOUSEHEATING ONLY	431,896	113.0							
HEATING DEGREE DAYS		7,047							
LONG ISLAND LIGHTING CO					1980	623	15,683	NA	NA
ALL RESIDENTIAL	361,071		19.4	18	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	160,422	139.3							
HEATING DEGREE DAYS		5,151							
NEW YORK STATE E & G					1980	NA	NA	NA	NA
ALL RESIDENTIAL	112,241		30.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	101,794	132.0							
HEATING DEGREE DAYS		7,539							
ROCHESTER GAS & ELECTRIC					1980	1,148	4,892	400	5,640
ALL RESIDENTIAL	198,035		32.5	85	1981	1,600	3,000	NA	NA
HOUSEHEATING ONLY	165,556	105.8							
HEATING DEGREE DAYS		6,833							
ORANGE & ROCKLAND UTILITIES					1980	1,972	459	0	2,431
ALL RESIDENTIAL	79,281		50.0	55	1981	1,843	348	0	2,191
HOUSEHEATING ONLY	72,981	124.0							
HEATING DEGREE DAYS		6,392							
COLUMBIA GAS OF N.Y.					1980	154	454	788	-180
ALL RESIDENTIAL	58,239		42.2	77	1981	165	335	0	500
HOUSEHEATING ONLY	51,405	113.0							
HEATING DEGREE DAYS		7,647							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
MIDDLE ATLANTIC									
NEW YORK									
ST LAWRENCE GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	9,127		25.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	8,211	150.0							
HEATING DEGREE DAYS		8,660							
MIDDLE ATLANTIC									
PENNSYLVANIA									
EQUITABLE GAS COMPANY					1980	1,364	254	364	1,254
ALL RESIDENTIAL	227,409		44.0	NA	1981	1,300	200	500	1,000
HOUSEHEATING ONLY	220,906	119.0							
HEATING DEGREE DAYS		6,312							
NATIONAL FUEL GAS DIST. CORP					1980	666	1,371	1,209	828
ALL RESIDENTIAL	184,153		43.0	93	1981	800	1,390	200	1,990
HOUSEHEATING ONLY	180,477	119.0							
HEATING DEGREE DAYS		7,180							
NORTH PENN GAS CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	27,393		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	27,179	138.0							
HEATING DEGREE DAYS		7,518							
PEOPLES NATURAL GAS CO					1980	1,838	748	781	1,805
ALL RESIDENTIAL	296,846		64.0	NA	1981	2,200	700	781	2,119
HOUSEHEATING ONLY	285,527	109.0							
HEATING DEGREE DAYS		6,434							
PHILADELPHIA ELECTRIC CO.					1980	1,375	11,966	100	13,241
ALL RESIDENTIAL	263,592		30.0	36	1981	2,810	7,690	100	10,400
HOUSEHEATING ONLY	182,246	125.0							
HEATING DEGREE DAYS		5,294							
PHILADELPHIA GAS WORKS					1980	2,242	16,556	2,060	16,738
ALL RESIDENTIAL	515,255		4.7	70	1981	2,200	9,800	1,500	10,500
HOUSEHEATING ONLY	413,700	11.9							
HEATING DEGREE DAYS		5,032							
PIKE COUNTY LIGHT & POWER CO					1980	5	1	NA	NA
ALL RESIDENTIAL	834		40.0	32	1981	9	NA	NA	NA
HOUSEHEATING ONLY	789	126.0							
HEATING DEGREE DAYS		6,392							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CON-VERSIONS	LESS LOSSES	NET ADDITIONS
MIDDLE ATLANTIC									
PENNSYLVANIA									
UGI CORP					1980	879	8,127	NA	NA
ALL RESIDENTIAL	185,690		32.4	21	1981	1,224	28,377	NA	NA
HOUSEHEATING ONLY	102,404	93.0							
HEATING DEGREE DAYS		5,572							
COLUMBIA GAS OF PENN.					1980	2,237	1,769	NA	NA
ALL RESIDENTIAL	302,368		40.3	69	1981	1,764	1,448	NA	NA
HOUSEHEATING ONLY	278,747	116.1							
HEATING DEGREE DAYS		6,374							
EAST NORTH CENTRAL									
ILLINOIS									
CENTRAL ILLINOIS LIGHT CO.					1980	1,068	5,099	800	5,367
ALL RESIDENTIAL	168,709		30.0	76	1981	1,100	1,715	200	2,615
HOUSEHEATING ONLY	163,480	111.6							
HEATING DEGREE DAYS		6,478							
CENTRAL IL PUBLIC SERVICE CO					1980	700	3,046	150	3,596
ALL RESIDENTIAL	132,274		22.3	80	1981	700	3,000	150	3,550
HOUSEHEATING ONLY	127,555	101.7							
HEATING DEGREE DAYS		5,923							
ILLINOIS POWER COMPANY					1980	4,370	1,509	NA	NA
ALL RESIDENTIAL	348,405		29.5	78	1981	4,266	1,540	NA	NA
HOUSEHEATING ONLY	332,695	100.0							
HEATING DEGREE DAYS		5,690							
IOWA ILLINOIS GAS CO.					1980	950	20	NA	NA
ALL RESIDENTIAL	58,755		18.1	94	1981	950	20	NA	NA
HOUSEHEATING ONLY	55,585	120.2							
HEATING DEGREE DAYS		6,293							
NORTH SHORE GAS CO.					1980	1,220	2,420	100	3,540
ALL RESIDENTIAL	97,722		47.0	88	1981	1,000	2,000	NA	NA
HOUSEHEATING ONLY	84,535	147.0							
HEATING DEGREE DAYS		6,840							
PEOPLES GAS LIGHT & COKE CO.					1980	1,550	17,300	2,400	16,450
ALL RESIDENTIAL	839,530		47.0	94	1981	1,500	11,000	3,000	9,500
HOUSEHEATING ONLY	561,233	147.0							
HEATING DEGREE DAYS		6,840							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST NORTH CENTRAL									
ILLINOIS									
NORTHERN ILLINOIS GAS CO.					1980	11,459	21,271	4,500	28,230
ALL RESIDENTIAL	1,309,859		39.0	93	1981	15,000	13,000	4,500	23,500
HOUSEHEATING ONLY	1,231,282	135.0							
HEATING DEGREE DAYS		6,300							
UNITED CITIES GAS CO.					1980	1,050	NA	NA	NA
ALL RESIDENTIAL	12,712		28.0	NA	1981	500	NA	NA	NA
HOUSEHEATING ONLY	11,946	78.0							
HEATING DEGREE DAYS		4,871							
EAST NORTH CENTRAL									
INDIANA									
LAWRENCEBURG GAS CO., THE					1980	0	100	0	100
ALL RESIDENTIAL	3,534		36.0	75	1981	20	100	0	120
HOUSEHEATING ONLY	3,443	105.0							
HEATING DEGREE DAYS		5,805							
CITIZENS GAS & COKE CO					1980	1,935	10,343	NA	NA
ALL RESIDENTIAL	187,396		55.0	71	1981	1,700	5,380	NA	NA
HOUSEHEATING ONLY	163,766	121.0							
HEATING DEGREE DAYS		6,082							
HOOSIER GAS CORP					1980	130	239	145	224
ALL RESIDENTIAL	20,582		31.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	20,314	102.0							
HEATING DEGREE DAYS		5,146							
INDIANA GAS COMPANY					1980	500	10,084	2,000	8,584
ALL RESIDENTIAL	274,594		36.9	97	1981	500	12,450	3,000	9,950
HOUSEHEATING ONLY	265,904	110.0							
HEATING DEGREE DAYS		5,921							
OHIO VALLEY GAS CORP.					1980	161	394	9	546
ALL RESIDENTIAL	21,666		14.8	97	1981	150	343	5	488
HOUSEHEATING ONLY	21,250	72.5							
HEATING DEGREE DAYS		5,872							
RICHMOND GAS CORPORATION					1980	93	738	25	806
ALL RESIDENTIAL	11,940		NA	NA	1981	25	325	25	325
HOUSEHEATING ONLY	10,678	NA							
HEATING DEGREE DAYS		6,151							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST NORTH CENTRAL									
INDIANA									
SOUTHERN INDIANA GAS & E					1980	358	381	168	571
ALL RESIDENTIAL	57,194		25.0	98	1981	400	700	200	900
HOUSEHEATING ONLY	56,093	110.0							
HEATING DEGREE DAYS		5,072							
EAST NORTH CENTRAL									
MICHIGAN									
BATTLE CREEK GAS COMPANY					1980	68	1,761	24	1,801
ALL RESIDENTIAL	30,513		44.1	NA	1981	65	1,829	NA	NA
HOUSEHEATING ONLY	25,898	147.9							
HEATING DEGREE DAYS		6,438							
CONSUMERS POWER COMPANY					1980	13,254	18,534	NA	NA
ALL RESIDENTIAL	1,062,221		24.8	76	1981	24,100	12,000	NA	NA
HOUSEHEATING ONLY	1,025,233	135.4							
HEATING DEGREE DAYS		7,241							
SOUTHEASTERN MICH GAS CO					1980	300	2,438	0	2,738
ALL RESIDENTIAL	59,215		34.0	98	1981	400	2,100	0	2,500
HOUSEHEATING ONLY	58,206	122.0							
HEATING DEGREE DAYS		7,780							
LAKE SUPERIOR DISTRICT POWER					1980	69	315	NA	NA
ALL RESIDENTIAL	3,566		29.0	60	1981	10	90	NA	NA
HOUSEHEATING ONLY	3,454	140.0							
HEATING DEGREE DAYS		9,242							
MICHIGAN CONSOLIDATED GAS CO					1980	9,000	10,300	3,030	16,270
ALL RESIDENTIAL	983,264		45.0	85	1981	8,100	6,350	3,000	11,450
HOUSEHEATING ONLY	932,499	130.0							
HEATING DEGREE DAYS		6,680							
MICHIGAN POWER CO.					1980	500	2,300	50	2,750
ALL RESIDENTIAL	60,220		30.0	90	1981	720	2,880	50	3,550
HOUSEHEATING ONLY	59,279	115.0							
HEATING DEGREE DAYS		7,750							
MICHIGAN GAS UTILITIES CO.					1980	1,276	3,027	NA	NA
ALL RESIDENTIAL	95,587		NA	NA	1981	1,167	2,500	NA	NA
HOUSEHEATING ONLY	92,048	146.3							
HEATING DEGREE DAYS		7,027							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST NORTH CENTRAL									
MICHIGAN									
WISCONSIN PUBLIC SERVICE COR					1980	NA	NA	NA	NA
ALL RESIDENTIAL	4,249		32.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	3,882	111.0							
HEATING DEGREE DAYS		8,024							
EAST NORTH CENTRAL									
OHIO									
CINCINNATI GAS AND ELECTRIC					1980	200	3,600	800	3,000
ALL RESIDENTIAL	269,136		36.0	89	1981	300	3,600	500	3,400
HOUSEHEATING ONLY	247,316	105.0							
HEATING DEGREE DAYS		5,805							
DAYTON POWER & LIGHT					1980	398	925	NA	NA
ALL RESIDENTIAL	243,079		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	239,243	NA							
HEATING DEGREE DAYS		6,095							
EAST OHIO GAS CO.					1980	8,245	7,200	4,409	11,036
ALL RESIDENTIAL	924,096		55.0	98	1981	6,384	6,916	3,500	9,800
HOUSEHEATING ONLY	910,694	114.0							
HEATING DEGREE DAYS		6,643							
NATIONAL FUEL GAS DIST. CORP					1980	22	46	7	61
ALL RESIDENTIAL	5,374		44.0	93	1981	30	57	9	78
HOUSEHEATING ONLY	5,271	115.0							
HEATING DEGREE DAYS		7,180							
OHIO GAS COMPANY					1980	325	801	50	1,076
ALL RESIDENTIAL	21,724		42.0	85	1981	200	655	50	805
HOUSEHEATING ONLY	21,371	139.2							
HEATING DEGREE DAYS		6,571							
RIVER GAS COMPANY					1980	104	37	18	123
ALL RESIDENTIAL	17,050		25.0	95	1981	130	70	25	175
HOUSEHEATING ONLY	16,900	105.0							
HEATING DEGREE DAYS		5,398							
TOLEDO EDISON COMPANY					1980	0	199	NA	NA
ALL RESIDENTIAL	4,515		41.0	55	1981	10	200	NA	NA
HOUSEHEATING ONLY	4,271	110.0							
HEATING DEGREE DAYS		7,339							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST NORTH CENTRAL									
OHIO									
WEST OHIO GAS CO.					1980	230	NA	230	NA
ALL RESIDENTIAL	49,763		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	47,801	NA							
HEATING DEGREE DAYS		6,028							
COLUMBIA GAS OF OHIO					1980	8,422	5,390	0	13,812
ALL RESIDENTIAL	975,049		32.8	71	1981	7,920	4,080	NA	NA
HOUSEHEATING ONLY	960,954	114.5							
HEATING DEGREE DAYS		6,323							
EAST NORTH CENTRAL									
WISCONSIN									
LAKE SUPERIOR DISTRICT POWER					1980	69	156	NA	NA
ALL RESIDENTIAL	5,541		29.0	56	1981	20	180	NA	NA
HOUSEHEATING ONLY	5,388	140.0							
HEATING DEGREE DAYS		9,242							
MADISON GAS & ELECTRIC					1980	700	5,040	20	5,720
ALL RESIDENTIAL	58,729		32.0	69	1981	1,000	3,800	20	4,780
HOUSEHEATING ONLY	51,494	107.0							
HEATING DEGREE DAYS		7,984							
WISCONSIN GAS COMPANY					1980	3,113	9,105	0	12,218
ALL RESIDENTIAL	376,055		35.0	78	1981	4,799	2,200	0	6,999
HOUSEHEATING ONLY	317,006	113.0							
HEATING DEGREE DAYS		7,537							
NORTHERN STATES POWER CO.					1980	38	856	72	822
ALL RESIDENTIAL	27,127		24.0	42	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	22,315	91.0							
HEATING DEGREE DAYS		7,780							
SUPERIOR WATER LIGHT & POWER					1980	117	390	NA	NA
ALL RESIDENTIAL	8,234		30.0	47	1981	60	250	NA	NA
HOUSEHEATING ONLY	5,391	148.0							
HEATING DEGREE DAYS		9,910							
WISCONSIN FUEL & LIGHT CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	33,571		30.9	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	31,375	106.7							
HEATING DEGREE DAYS		8,033							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST NORTH CENTRAL									
WISCONSIN									
WISCONSIN POWER AND LIGHT					1980	842	2,517	0	3,359
ALL RESIDENTIAL	86,656		NA	67	1981	1,135	2,360	0	3,495
HOUSEHEATING ONLY	78,343	NA							
HEATING DEGREE DAYS		7,971							
WISCONSIN PUBLIC SERVICE					1980	NA	NA	NA	NA
ALL RESIDENTIAL	132,868		32.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	122,074	111.0							
HEATING DEGREE DAYS		8,024							
WEST NORTH CENTRAL									
IOWA									
CEDAR FALLS UTILITIES					1980	2	113	NA	NA
ALL RESIDENTIAL	8,180		66.0	NA	1981	4	84	NA	NA
HOUSEHEATING ONLY	8,180	135.0							
HEATING DEGREE DAYS		6,077							
IOWA ELECTRIC LIGHT & POWER					1980	NA	977	2,859	NA
ALL RESIDENTIAL	112,210		32.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	108,487	99.0							
HEATING DEGREE DAYS		6,752							
IOWA-ILLINOIS GAS & ELECTRIC					1980	1,000	35	NA	NA
ALL RESIDENTIAL	144,440		20.8	94	1981	1,000	40	NA	NA
HOUSEHEATING ONLY	137,302	110.6							
HEATING DEGREE DAYS		6,293							
IOWA POWER & LIGHT					1980	1,581	447	100	1,928
ALL RESIDENTIAL	118,984		30.0	88	1981	1,120	280	100	1,300
HOUSEHEATING ONLY	115,318	110.0							
HEATING DEGREE DAYS		6,334							
IOWA PUBLIC SERVICE CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	97,301		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	87,079	NA							
HEATING DEGREE DAYS		7,131							
NORTH CENTRAL PUBLIC SERVICE					1980	101	377	18	460
ALL RESIDENTIAL	11,159		43.0	90	1981	75	192	16	251
HOUSEHEATING ONLY	11,092	138.0							
HEATING DEGREE DAYS		6,318							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST NORTH CENTRAL									
KANSAS									
GAS SERVICE COMPANY					1980	4,081	NA	NA	NA
ALL RESIDENTIAL	371,208		10.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	371,208	120.0							
HEATING DEGREE DAYS		5,300							
KANSAS-NEBRASKA GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	22,875		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	22,417	NA							
HEATING DEGREE DAYS		5,975							
KANSAS POWER & LIGHT CO					1980	1,222	75	75	1,222
ALL RESIDENTIAL	115,109		32.4	98	1981	507	75	75	507
HOUSEHEATING ONLY	112,807	84.6							
HEATING DEGREE DAYS		5,559							
WEST NORTH CENTRAL									
MINNESOTA									
CITY OF DULUTH WATER & GAS					1980	60	1,860	25	1,895
ALL RESIDENTIAL	19,577		55.0	90	1981	50	1,505	10	1,545
HOUSEHEATING ONLY	10,794	150.0							
HEATING DEGREE DAYS		9,800							
MONTANA-DAKOTA UTILITIES					1980	NA	NA	NA	NA
ALL RESIDENTIAL	1,586		26.6	63	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	1,005	96.8							
HEATING DEGREE DAYS		9,049							
NORTHERN STATES POWER CO.					1980	2,377	7,606	400	9,583
ALL RESIDENTIAL	201,257		36.0	90	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	180,382	113.0							
HEATING DEGREE DAYS		7,860							
NORTH CENTRAL PUBLIC SERVICE					1980	1,361	1,339	0	2,700
ALL RESIDENTIAL	40,533		41.0	87	1981	1,200	985	0	2,185
HOUSEHEATING ONLY	37,148	91.0							
HEATING DEGREE DAYS		8,464							
MINNESOTA GAS COMPANY					1980	5,655	7,086	70	12,671
ALL RESIDENTIAL	370,425		42.4	90	1981	6,883	3,920	NA	NA
HOUSEHEATING ONLY	360,053	102.4							
HEATING DEGREE DAYS		7,514							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST NORTH CENTRAL									
MISSOURI									
GAS SERVICE COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	371,724		10.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	371,724	126.0							
HEATING DEGREE DAYS		5,328							
MISSOURI PUBLIC SERVICE CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	36,130		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	35,880	NA							
HEATING DEGREE DAYS		5,536							
MISSOURI UTILITIES COMPANY					1980	200	454	390	264
ALL RESIDENTIAL	43,394		25.5	80	1981	200	360	20	540
HOUSEHEATING ONLY	42,856	97.6							
HEATING DEGREE DAYS		4,777							
CITY UTIL. OF SPRINGFIELD					1980	300	107	50	357
ALL RESIDENTIAL	48,524		32.0	99	1981	1,000	150	50	1,100
HOUSEHEATING ONLY	48,038	85.0							
HEATING DEGREE DAYS		4,671							
ASSOCIATED NATURAL GAS					1980	0	1,107	NA	NA
ALL RESIDENTIAL	41,341		24.0	50	1981	NA	0	NA	NA
HOUSEHEATING ONLY	41,341	86.0							
HEATING DEGREE DAYS		4,186							
LACLEDE GAS COMPANY					1980	2,700	1,500	3,200	1,000
ALL RESIDENTIAL	516,716		47.9	90	1981	2,700	1,500	3,200	1,000
HOUSEHEATING ONLY	494,479	78.5							
HEATING DEGREE DAYS		4,996							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST NORTH CENTRAL									
NEBRASKA									
GAS SERVICE COMPANY					1980	3,223	NA	NA	NA
ALL RESIDENTIAL	3,223		10.0	NA	1981	3,223	NA	NA	NA
HOUSEHEATING ONLY	3,223	120.0							
HEATING DEGREE DAYS		5,209							
HASTINGS UTILITIES					1980	NA	NA	51	NA
ALL RESIDENTIAL	7,888		NA	NA	1981	50	NA	NA	NA
HOUSEHEATING ONLY	7,494	120.6							
HEATING DEGREE DAYS		5,225							
IOWA PUBLIC SERVICE CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	3,360		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	3,360	NA							
HEATING DEGREE DAYS		7,131							
KANSAS-NEBRASKA GAS CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	68,170		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	66,806	NA							
HEATING DEGREE DAYS		6,121							
METROPOLITAN UTILITIES DIST					1980	1,900	320	220	2,000
ALL RESIDENTIAL	117,477		38.5	89	1981	1,500	320	240	1,580
HOUSEHEATING ONLY	113,216	97.4							
HEATING DEGREE DAYS		6,471							
NEBRASKA NATURAL GAS CO					1980	107	28	20	115
ALL RESIDENTIAL	17,635		36.0	98	1981	130	19	10	139
HOUSEHEATING ONLY	17,635	105.0							
HEATING DEGREE DAYS		6,282							
NORTHWESTERN PUBLIC SERVICE					1980	NA	NA	NA	NA
ALL RESIDENTIAL	31,455		11.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	31,312	150.0							
HEATING DEGREE DAYS		6,355							
MINNESOTA GAS COMPANY					1980	1,743	490	11	2,222
ALL RESIDENTIAL	101,844		35.0	95	1981	1,920	89	10	1,999
HOUSEHEATING ONLY	100,045	92.0							
HEATING DEGREE DAYS		5,869							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST NORTH CENTRAL									
NORTH DAKOTA									
MONTANA-DAKOTA UTILITIES					1980	NA	NA	NA	NA
ALL RESIDENTIAL	58,425		36.5	99	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	57,841	97.3							
HEATING DEGREE DAYS		8,347							
NORTHERN STATES POWER CO.					1980	11	98	104	5
ALL RESIDENTIAL	18,464		24.0	70	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	13,905	113.0							
HEATING DEGREE DAYS		8,928							
WEST NORTH CENTRAL									
SOUTH DAKOTA									
IOWA PUBLIC SERVICE CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	7,318		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	7,314	NA							
HEATING DEGREE DAYS		7,131							
MONTANA-DAKOTA UTILITIES					1980	NA	NA	NA	NA
ALL RESIDENTIAL	24,185		35.4	99	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	23,943	72.4							
HEATING DEGREE DAYS		6,814							
NORTHWESTERN PUBLIC SERVICE					1980	0	NA	NA	NA
ALL RESIDENTIAL	23,947		30.0	95	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	22,543	160.0							
HEATING DEGREE DAYS		7,546							
MINNESOTA GAS COMPANY					1980	695	484	10	1,169
ALL RESIDENTIAL	32,526		34.0	98	1981	300	300	10	590
HOUSEHEATING ONLY	32,114	95.0							
HEATING DEGREE DAYS		7,532							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
SOUTH ATLANTIC									
DISTRICT OF COLUMBIA									
WASHINGTON GAS LIGHT COMPANY					1980	600	19,000	400	19,200
ALL RESIDENTIAL	133,650		40.9	58	1981	600	15,000	400	15,200
HOUSEHEATING ONLY	92,346	95.4							
HEATING DEGREE DAYS		3,891							
SOUTH ATLANTIC									
DELAWARE									
CHESAPEAKE UTILITIES CORP					1980	NA	NA	NA	NA
ALL RESIDENTIAL	8,415		22.6	85	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	NA	47.2							
HEATING DEGREE DAYS		4,820							
DELMARVA POWER & LIGHT CO.					1980	NA	1,401	NA	NA
ALL RESIDENTIAL	69,024		50.0	30	1981	NA	188	NA	NA
HOUSEHEATING ONLY	44,105	100.0							
HEATING DEGREE DAYS		5,178							
SOUTH ATLANTIC									
FLORIDA									
FLORIDA PUBLIC UTILITIES CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	29,400		36.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	NA	NA							
HEATING DEGREE DAYS		405							
PEOPLES GAS SYSTEM					1980	3,782	614	0	4,396
ALL RESIDENTIAL	155,108		16.6	42	1981	4,100	630	NA	NA
HOUSEHEATING ONLY	88,566	127.0							
HEATING DEGREE DAYS		207							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
SOUTH ATLANTIC									
GEORGIA									
ATLANTA GAS LIGHT					1980	25,699	1,353	NA	NA
ALL RESIDENTIAL	761,063		22.2	97	1981	26,470	1,394	NA	NA
HOUSEHEATING ONLY	738,231	78.0							
HEATING DEGREE DAYS		2,820							
GAS LIGHT CO. OF COLUMBUS					1980	548	30	294	284
ALL RESIDENTIAL	46,986		32.0	88	1981	601	33	285	349
HOUSEHEATING ONLY	46,986	54.0							
HEATING DEGREE DAYS		2,154							
UNITED CITIES GAS CO.					1980	111	NA	NA	NA
ALL RESIDENTIAL	6,653		20.0	NA	1981	350	NA	NA	NA
HOUSEHEATING ONLY	6,554	59.0							
HEATING DEGREE DAYS		2,984							
SOUTH ATLANTIC									
MARYLAND									
CHESAPEAKE UTILITIES CORP					1980	NA	NA	NA	NA
ALL RESIDENTIAL	3,852		22.6	20	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	2,700	47.2							
HEATING DEGREE DAYS		4,675							
BALTIMORE GAS & ELECTRIC CO.					1980	NA	4,500	1,000	NA
ALL RESIDENTIAL	476,318		43.0	50	1981	NA	3,500	1,000	NA
HOUSEHEATING ONLY	323,526	82.0							
HEATING DEGREE DAYS		4,864							
WASHINGTON GAS LIGHT COMPANY					1980	2,500	17,600	400	19,700
ALL RESIDENTIAL	207,289		38.8	65	1981	3,500	25,100	400	28,200
HOUSEHEATING ONLY	196,593	91.6							
HEATING DEGREE DAYS		3,891							
COLUMBIA GAS OF MD.					1980	283	144	NA	NA
ALL RESIDENTIAL	26,506		31.3	51	1981	131	69	NA	NA
HOUSEHEATING ONLY	21,466	105.0							
HEATING DEGREE DAYS		6,374							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
SOUTH ATLANTIC									
NORTH CAROLINA									
PIEDMONT NATURAL GAS CO.,INC					1980	1,500	3,900	700	4,700
ALL RESIDENTIAL	129,797		27.8	50	1981	1,500	4,100	700	4,900
HOUSEHEATING ONLY	111,200	75.2							
HEATING DEGREE DAYS		3,969							
PUBLIC SERVICE OF N.C.					1980	1,273	6,566	215	7,624
ALL RESIDENTIAL	126,854		24.7	61	1981	1,125	6,550	220	7,455
HOUSEHEATING ONLY	112,075	98.4							
HEATING DEGREE DAYS		3,765							
UNITED CITIES GAS CO.					1980	245	NA	NA	NA
ALL RESIDENTIAL	2,291		25.0	NA	1981	200	NA	NA	NA
HOUSEHEATING ONLY	2,089	68.0							
HEATING DEGREE DAYS		4,235							
CITY OF WILSON GAS CO.					1980	160	32	2	190
ALL RESIDENTIAL	5,519		37.8	44	1981	50	NA	3	NA
HOUSEHEATING ONLY	4,986	70.2							
HEATING DEGREE DAYS		90							
NORTH CAROLINA NATURAL GAS					1980	NA	NA	NA	NA
ALL RESIDENTIAL	71,296		16.0	35	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	66,560	70.0							
HEATING DEGREE DAYS		3,240							
SOUTH ATLANTIC									
SOUTH CAROLINA									
PIEDMONT NATURAL GAS CO.					1980	600	1,500	300	1,800
ALL RESIDENTIAL	40,658		26.7	50	1981	600	1,550	300	1,850
HOUSEHEATING ONLY	36,600	76.1							
HEATING DEGREE DAYS		3,623							
UNITED CITIES GAS CO.					1980	57	NA	NA	NA
ALL RESIDENTIAL	3,474		23.0	NA	1981	100	NA	NA	NA
HOUSEHEATING ONLY	3,103	51.0							
HEATING DEGREE DAYS		3,587							
NORTH CAROLINA NATURAL GAS					1980	NA	NA	NA	NA
ALL RESIDENTIAL	14,500		NA	50	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	NA	100.0							
HEATING DEGREE DAYS		NA							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
SOUTH ATLANTIC									
VIRGINIA									
CITY DANVILLE GAS					1980	25	153	13	165
ALL RESIDENTIAL	13,642		24.3	NA	1981	100	185	15	270
HOUSEHEATING ONLY	11,869	90.3							
HEATING DEGREE DAYS		4,233							
PORTSMOUTH GAS COMPANY					1980	400	487	NA	NA
ALL RESIDENTIAL	25,389		29.4	44	1981	400	NA	NA	NA
HOUSEHEATING ONLY	22,138	71.5							
HEATING DEGREE DAYS		3,665							
CITY OF RICHMOND					1980	875	2,623	147	3,351
ALL RESIDENTIAL	63,316		24.8	NA	1981	1,000	3,000	150	3,850
HOUSEHEATING ONLY	44,839	67.6							
HEATING DEGREE DAYS		4,017							
ROANOKE GAS COMPANY					1980	510	538	54	994
ALL RESIDENTIAL	28,801		30.0	30	1981	800	550	70	1,280
HOUSEHEATING ONLY	26,238	109.0							
HEATING DEGREE DAYS		4,461							
UNITED CITIES GAS CO.					1980	93	NA	NA	NA
ALL RESIDENTIAL	878		16.0	NA	1981	200	NA	NA	NA
HOUSEHEATING ONLY	778	112.0							
HEATING DEGREE DAYS		4,722							
VIRGINIA ELECTRIC AND POWER					1980	429	1,692	742	1,379
ALL RESIDENTIAL	111,164		22.0	30	1981	500	760	300	960
HOUSEHEATING ONLY	84,366	83.0							
HEATING DEGREE DAYS		3,789							
COLUMBIA GAS OF VA.					1980	177	193	91	279
ALL RESIDENTIAL	34,724		32.6	45	1981	160	190	NA	NA
HOUSEHEATING ONLY	33,692	81.9							
HEATING DEGREE DAYS		4,824							
WASHINGTON GAS LIGHT COMPANY					1980	1,500	15,300	300	16,500
ALL RESIDENTIAL	159,988		35.5	66	1981	2,500	25,100	300	27,300
HOUSEHEATING ONLY	146,165	85.8							
HEATING DEGREE DAYS		3,891							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
SOUTH ATLANTIC									
WEST VIRGINIA									
EQUITABLE GAS COMPANY					1980	122	NA	NA	NA
ALL RESIDENTIAL	10,461		36.0	NA	1981	100	NA	NA	NA
HOUSEHEATING ONLY	10,100	98.0							
HEATING DEGREE DAYS		NA							
HOPE NATURAL GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	102,680		40.1	NA	1981	1,053	30	30	1,053
HOUSEHEATING ONLY	101,653	89.1							
HEATING DEGREE DAYS		5,310							
COLUMBIA GAS OF W.VA.					1980	1,563	174	0	1,737
ALL RESIDENTIAL	192,230		32.6	67	1981	1,350	150	NA	NA
HOUSEHEATING ONLY	192,214	100.5							
HEATING DEGREE DAYS		5,504							
EAST SOUTH CENTRAL									
ALABAMA									
ALABAMA GAS CORP.					1980	5,392	278	800	4,870
ALL RESIDENTIAL	327,545		31.0	85	1981	5,000	375	800	4,575
HOUSEHEATING ONLY	319,599	60.0							
HEATING DEGREE DAYS		3,031							
DECATUR GAS DEPT.					1980	5	10	11	4
ALL RESIDENTIAL	3,960		10.0	19	1981	10	10	5	15
HOUSEHEATING ONLY	3,060	57.0							
HEATING DEGREE DAYS		3,360							
CITY OF FLORENCE GAS DEPT.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	7,837		60.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	7,837	50.0							
HEATING DEGREE DAYS		5,021							
SOUTHEAST ALABAMA GAS DIST.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	28,165		36.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	28,165	75.0							
HEATING DEGREE DAYS		2,001							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST SOUTH CENTRAL									
KENTUCKY									
COLUMBIA GAS OF KENTUCKY					1980	503	241	NA	NA
ALL RESIDENTIAL	102,995		31.9	60	1981	600	200	NA	NA
HOUSEHEATING ONLY	102,283	96.6							
HEATING DEGREE DAYS		5,118							
UNION LIGHT, HEAT & POWER CO					1980	50	500	200	350
ALL RESIDENTIAL	55,888		36.0	92	1981	50	500	100	450
HOUSEHEATING ONLY	52,649	105.0							
HEATING DEGREE DAYS		5,805							
EQUITABLE GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	4,253		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	4,100	NA							
HEATING DEGREE DAYS		NA							
LOUISVILLE GAS & ELECTRIC					1980	200	1,650	995	855
ALL RESIDENTIAL	214,722		NA	NA	1981	1,250	1,270	NA	NA
HOUSEHEATING ONLY	195,500	NA							
HEATING DEGREE DAYS		4,814							
WESTERN KENTUCKY GAS COMPANY					1980	1,200	NA	NA	NA
ALL RESIDENTIAL	122,068		33.0	95	1981	2,000	NA	NA	NA
HOUSEHEATING ONLY	115,965	135.0							
HEATING DEGREE DAYS		4,703							
DELTA NATURAL GAS CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	16,947		24.0	65	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	16,438	82.0							
HEATING DEGREE DAYS		5,165							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST SOUTH CENTRAL									
MISSISSIPPI									
ENTEX, INC.					1980	757	200	10	947
ALL RESIDENTIAL	96,836		33.0	95	1981	800	220	10	1,010
HOUSEHEATING ONLY	96,836	50.0							
HEATING DEGREE DAYS		2,656							
MISSISSIPPI VALLEY GAS CO.					1980	1,875	194	910	1,159
ALL RESIDENTIAL	189,711		31.2	97	1981	1,600	200	900	900
HOUSEHEATING ONLY	189,711	64.9							
HEATING DEGREE DAYS		2,906							
EAST SOUTH CENTRAL									
TENNESSEE									
CHATTANOOGA GAS COMPANY					1980	470	309	71	708
ALL RESIDENTIAL	21,895		37.0	20	1981	500	330	NA	NA
HOUSEHEATING ONLY	20,800	105.0							
HEATING DEGREE DAYS		3,793							
KNOXVILLE UTILITIES BOARD					1980	NA	NA	NA	NA
ALL RESIDENTIAL	15,587		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY**	14,807	NA							
HEATING DEGREE DAYS		3,765							
MEMPHIS LIGHT GAS & WATER					1980	2,215	10	NA	NA
ALL RESIDENTIAL	213,706		30.0	78	1981	1,500	14	NA	NA
HOUSEHEATING ONLY	206,162	98.0							
HEATING DEGREE DAYS		3,252							
NASHVILLE GAS COMPANY					1980	306	207	NA	NA
ALL RESIDENTIAL	54,183		30.0	30	1981	450	300	NA	NA
HOUSEHEATING ONLY	52,558	90.0							
HEATING DEGREE DAYS		3,968							
UNITED CITIES GAS CO.					1980	721	NA	NA	NA
ALL RESIDENTIAL	22,062		21.0	NA	1981	1,500	NA	NA	NA
HOUSEHEATING ONLY	21,360	74.0							
HEATING DEGREE DAYS		3,953							
MIDDLE TENN GAS DISTRICT					1980	125	275	25	375
ALL RESIDENTIAL	7,778		18.0	55	1981	150	190	25	315
HOUSEHEATING ONLY	7,739	85.0							
HEATING DEGREE DAYS		3,800							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
EAST SOUTH CENTRAL									
TENNESSEE									
JACKSON UTILITY DIVISION					1980	200	69	56	213
ALL RESIDENTIAL	14,676		23.0	75	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	14,314	81.0							
HEATING DEGREE DAYS		3,699							
WEST SOUTH CENTRAL									
ARKANSAS									
ASSOCIATED NATURAL GAS					1980	NA	476	NA	NA
ALL RESIDENTIAL	15,824		NA	80	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	15,824	NA							
HEATING DEGREE DAYS		4,186							
WEST SOUTH CENTRAL									
LOUISIANA									
LOUISIANA GAS SERVICE CO.					1980	121	NA	106	NA
ALL RESIDENTIAL	218,132		32.0	75	1981	130	NA	100	NA
HOUSEHEATING ONLY	211,588	41.0							
HEATING DEGREE DAYS		1,448							
TRANS-LOUISIANA GAS CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	61,729		33.0	95	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	NA	42.0							
HEATING DEGREE DAYS		1,825							
NEW ORLEANS PUBLIC SERVICE					1980	NA	NA	NA	NA
ALL RESIDENTIAL	163,873		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	NA	NA							
HEATING DEGREE DAYS		1,035							
ENTEX, INC.					1980	1,404	60	10	1,454
ALL RESIDENTIAL	125,008		33.0	95	1981	1,250	120	10	1,360
HOUSEHEATING ONLY	123,673	50.0							
HEATING DEGREE DAYS		1,719							
CITY OF VIDALIA					1980	1	NA	38	NA
ALL RESIDENTIAL	1,850		NA	95	1981	0	NA	10	NA
HOUSEHEATING ONLY	1,850	NA							
HEATING DEGREE DAYS		NA							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST SOUTH CENTRAL									
OKLAHOMA									
GAS SERVICE CO.					1980	200	NA	NA	NA
ALL RESIDENTIAL	32,689		8.0	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	32,689	100.0							
HEATING DEGREE DAYS		4,300							
LONE STAR GAS CO.					1980	430	11	30	411
ALL RESIDENTIAL	34,162		28.0	45	1981	441	11	50	402
HOUSEHEATING ONLY	28,013	72.0							
HEATING DEGREE DAYS		2,431							
OKLAHOMA NATURAL GAS CO.					1980	12,250	1,780	520	13,510
ALL RESIDENTIAL	547,630		32.0	94	1981	12,400	700	300	12,800
HOUSEHEATING ONLY	546,940	74.0							
HEATING DEGREE DAYS		3,745							
SOUTHERN UNION GAS CO					1980	125	35	10	150
ALL RESIDENTIAL	4,430		NA	75	1981	150	25	5	170
HOUSEHEATING ONLY	4,365	NA							
HEATING DEGREE DAYS		3,700							
WEST SOUTH CENTRAL									
TEXAS									
CITY OF CORPUS CHRISTI					1980	822	NA	NA	NA
ALL RESIDENTIAL	52,402		27.2	NA	1981	700	NA	NA	NA
HOUSEHEATING ONLY	52,402	24.7							
HEATING DEGREE DAYS		933							
LONE STAR GAS CO					1980	13,904	400	4,400	9,904
ALL RESIDENTIAL	1,030,580		28.0	45	1981	14,252	400	4,500	10,152
HOUSEHEATING ONLY	845,076	72.0							
HEATING DEGREE DAYS		2,431							
CITY PUBLIC SERVICE					1980	9,257	0	4,009	5,248
ALL RESIDENTIAL	243,011		32.2	85	1981	1,272	0	1,467	-195
HOUSEHEATING ONLY	230,860	31.4							
HEATING DEGREE DAYS		1,562							
SOUTHERN UNION GAS CO.					1980	7,732	196	65	7,863
ALL RESIDENTIAL	272,964		NA	86	1981	6,000	200	100	6,100
HOUSEHEATING ONLY	272,813	NA							
HEATING DEGREE DAYS		2,600							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
WEST SOUTH CENTRAL									
TEXAS									
ENTEX, INC.					1980	14,186	1,100	65	15,221
ALL RESIDENTIAL	887,016		31.0	83	1981	16,000	1,300	60	17,240
HOUSEHEATING ONLY	871,204	47.0							
HEATING DEGREE DAYS		1,844							
PIONEER NATURAL GAS CO.					1980	2,804	24	163	2,665
ALL RESIDENTIAL	237,211		39.0	94	1981	3,000	40	200	2,840
HOUSEHEATING ONLY	222,978	85.0							
HEATING DEGREE DAYS		3,403							
MOUNTAIN									
ARIZONA									
ARIZONA PUBLIC SERVICE					1980	3,000	NA	1,800	NA
ALL RESIDENTIAL	314,180		28.4	94	1981	4,400	NA	1,800	NA
HOUSEHEATING ONLY	294,199	47.7							
HEATING DEGREE DAYS		883							
SOUTHERN UNION COMPANY					1980	1,437	243	10	1,670
ALL RESIDENTIAL	36,458		NA	87	1981	1,000	275	0	1,275
HOUSEHEATING ONLY	35,269	NA							
HEATING DEGREE DAYS		7,400							
SOUTHWEST GAS CORP.					1980	5,768	NA	0	NA
ALL RESIDENTIAL	164,136		12.0	75	1981	4,169	NA	0	NA
HOUSEHEATING ONLY	151,148	42.0							
HEATING DEGREE DAYS		210							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEAT-ING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CON-VER-SIONS	LESS LOSSES	NET ADDI-TIONS
MOUNTAIN									
COLORADO									
DEPT OF PUBLIC UTILITIES					1980	2,406	NA	113	NA
ALL RESIDENTIAL	72,381		31.6	99	1981	2,478	NA	NA	NA
HOUSEHEATING ONLY	72,381	85.3							
HEATING DEGREE DAYS		6,079							
KANSAS-NEBRASKA GAS CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	5,336		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	5,229	NA							
HEATING DEGREE DAYS		6,469							
PUBLIC SERV.CO.OF COLORADO					1980	18,981	NA	NA	NA
ALL RESIDENTIAL	591,006		44.3	88	1981	17,907	NA	NA	NA
HOUSEHEATING ONLY	591,006	120.0							
HEATING DEGREE DAYS		5,152							
MOUNTAIN									
IDAHO									
WASHINGTON WATER POWER CO					1980	256	255	176	335
ALL RESIDENTIAL	15,193		13.0	23	1981	250	120	NA	NA
HOUSEHEATING ONLY	14,241	92.0							
HEATING DEGREE DAYS		6,600							
INTERMOUNTAIN GAS CO					1980	1,517	1,382	2,563	336
ALL RESIDENTIAL	83,620		15.0	44	1981	1,319	1,478	2,300	497
HOUSEHEATING ONLY	72,500	76.0							
HEATING DEGREE DAYS		6,188							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
MOUNTAIN									
MONTANA									
GREAT FALLS GAS COMPANY					1980	98	NA	NA	NA
ALL RESIDENTIAL	20,545		47.6	98	1981	100	NA	NA	NA
HOUSEHEATING ONLY	20,400	72.9							
HEATING DEGREE DAYS		7,284							
MONTANA-DAKOTA UTILITIES					1980	NA	NA	NA	NA
ALL RESIDENTIAL	51,000		37.9	99	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	50,490	89.3							
HEATING DEGREE DAYS		6,695							
MONTANA POWER COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	90,866		NA	89	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	90,866	NA							
HEATING DEGREE DAYS		8,600							
MOUNTAIN									
NEW MEXICO									
SOUTHERN UNION GAS CO.					1980	6,395	255	55	6,595
ALL RESIDENTIAL	250,086		NA	85	1981	5,000	200	100	5,100
HOUSEHEATING ONLY	249,701	NA							
HEATING DEGREE DAYS		NA							
MOUNTAIN									
NEVADA									
SIERRA-PACIFIC POWER CO.					1980	NA	NA	NA	NA
ALL RESIDENTIAL	37,174		64.5	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	35,725	75.8							
HEATING DEGREE DAYS		NA							
SOUTHWEST GAS CORP.					1980	9,249	0	0	9,249
ALL RESIDENTIAL	121,392		30.0	45	1981	10,190	0	0	10,190
HOUSEHEATING ONLY	110,884	54.0							
HEATING DEGREE DAYS		381							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
MOUNTAIN									
UTAH									
MOUNTAIN FUEL SUPPLY					1980	11,206	NA	NA	NA
ALL RESIDENTIAL	350,729		35.0	95	1981	14,005	NA	NA	NA
HOUSEHEATING ONLY	350,729	125.0							
HEATING DEGREE DAYS		5,895							
MOUNTAIN									
WYOMING									
KANSAS NEBRASKA NATURAL GAS					1980	NA	NA	NA	NA
ALL RESIDENTIAL	9,939		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	9,740	NA							
HEATING DEGREE DAYS		7,192							
MONTANA-DAKOTA UTILITIES CO					1980	NA	NA	NA	NA
ALL RESIDENTIAL	10,922		38.2	99	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	10,813	94.0							
HEATING DEGREE DAYS		7,140							
MOUNTAIN FUEL SUPPLY CO					1980	1,222	NA	NA	NA
ALL RESIDENTIAL	16,119		40.0	95	1981	490	NA	NA	NA
HOUSEHEATING ONLY	16,119	180.0							
HEATING DEGREE DAYS		7,990							
WYOMING GAS COMPANY					1980	NA	NA	NA	NA
ALL RESIDENTIAL	5,313		36.0	98	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	5,313	97.0							
HEATING DEGREE DAYS		7,223							
NORTHERN GAS DIVISION					1980	1,000	279	0	1,279
ALL RESIDENTIAL	41,740		36.0	NA	1981	1,200	100	0	1,300
HOUSEHEATING ONLY	41,740	114.0							
HEATING DEGREE DAYS		7,388							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEAT-ING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	GAS-HTD HOUSING UNIT ADDITIONS YEAR	NEW CONST	CON-VER-SIONS	LESS LOSSES	NET ADDI-TIONS
PACIFIC									
ALASKA									
ALASKA GAS SERVICE CO.					1980	1,000	1,850	50	2,800
ALL RESIDENTIAL	37,037		86.0	65	1981	1,400	1,575	50	2,925
HOUSEHEATING ONLY	36,500	128.0							
HEATING DEGREE DAYS		10,582							
PACIFIC									
CALIFORNIA									
LONG BEACH GAS DEPT					1980	800	NA	200	NA
ALL RESIDENTIAL	122,789		36.0	95	1981	800	NA	200	NA
HOUSEHEATING ONLY	115,920	37.0							
HEATING DEGREE DAYS		1,032							
PACIFIC GAS & ELECTRIC					1980	49,557	NA	NA	NA
ALL RESIDENTIAL	2,680,095		26.5	88	1981	58,800	NA	NA	NA
HOUSEHEATING ONLY	2,636,218	55.1							
HEATING DEGREE DAYS		3,795							
SOUTHWEST GAS CORP.					1980	3,750	0	0	3,750
ALL RESIDENTIAL	49,507		24.0	80	1981	1,872	0	0	1,872
HOUSEHEATING ONLY	47,031	52.0							
HEATING DEGREE DAYS		482							
SOUTHERN CALIFORNIA GAS CO.					1980	71,907	1,418	6,953	66,372
ALL RESIDENTIAL	3,588,998		40.0	91	1981	77,000	1,000	7,600	70,400
HOUSEHEATING ONLY	3,306,349	50.0							
HEATING DEGREE DAYS		1,142							

DIVISION / STATE / COMPANY	CUSTOMERS YEAR-END	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) HEATING	CONSUMPTION PER SINGLE FAMILY HOME (MCF/YR) BASE-LOAD	GAS-HTD MKT SHARE (%)	YEAR	GAS-HTD HOUSING UNIT ADDITIONS NEW CONST	CONVERSIONS	LESS LOSSES	NET ADDITIONS
PACIFIC									
OREGON									
NORTHWEST NATURAL GAS CO.					1980	4,130	6,930	4,580	6,480
ALL RESIDENTIAL	212,682		33.0	29	1981	5,420	7,300	4,350	8,370
HOUSEHEATING ONLY	196,646	46.0							
HEATING DEGREE DAYS		4,345							
CASCADE NATURAL GAS					1980	240	359	423	176
ALL RESIDENTIAL	14,602		NA	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	9,802	83.2							
HEATING DEGREE DAYS		5,955							
PACIFIC									
WASHINGTON									
NORTHWEST NATURAL GAS					1980	20	85	192	-87
ALL RESIDENTIAL	5,384		33.0	11	1981	15	120	200	-65
HOUSEHEATING ONLY	4,866	46.0							
HEATING DEGREE DAYS		4,345							
WASHINGTON WATER POWER CO					1980	326	860	995	191
ALL RESIDENTIAL	52,588		17.0	33	1981	290	409	NA	NA
HOUSEHEATING ONLY	51,111	112.1							
HEATING DEGREE DAYS		6,600							
CASCADE NATURAL GAS CORP					1980	466	1,438	1,194	710
ALL RESIDENTIAL	53,097		32.1	NA	1981	NA	NA	NA	NA
HOUSEHEATING ONLY	44,968	71.4							
HEATING DEGREE DAYS		5,383							
WASHINGTON NATURAL GAS CO.					1980	2,966	6,172	2,700	6,438
ALL RESIDENTIAL	223,667		19.9	30	1981	4,160	5,000	1,500	7,660
HOUSEHEATING ONLY	216,998	79.1							
HEATING DEGREE DAYS		4,972							

APPENDIX 2

COMPETITIVE FUEL PRICES
(as of December 31, 1980)

The information in this section presents the average delivered price (as of December 31, 1980) of competitive fuels distributed to residential customers, gas' principal competition in each market, and the average annual gas heating bill. The data reflect prices in the principal city served within each company's franchise area. Regional fuel prices for competitive fuels are listed at the end of each region. Prices are expressed in dollars per million Btu for comparison.

The prices for natural gas represent househeating use only and exclude baseload prices. Baseload consumption includes all domestic uses of gas (e.g., ranges, water heaters, and clothes dryers) except househeating and air conditioning. Moreover, baseload prices are generally higher than househeating prices because utilities charge more per unit of energy for small monthly consumption (baseload only) and less per unit of energy for large monthly consumption (baseload plus winter heating use).

The prices for electricity represent total electric use or the rate prevailing for 600 kwh per month and above.

The following conversion factors were used to convert reported data to Btu.

Conversions Factors

Natural Gas	1,000 cubic feet/million Btu
Fuel Oil #2	7.194 gallons/million Btu
Electricity	293.083 kwh/million Btu
Propane	10.917 gallons/million Btu

Information marked "NA" represents data not available or fuel not distributed.

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
NEW ENGLAND							
CONNECTICUT							
SOUTHERN CONNECTICUT GAS CO.	BRIDGEPORT	6.10	8.99	21.98	9.39	NA	685.00
CONNECTICUT NATURAL GAS CORP	HARTFORD	5.22	7.89	19.21	8.41	#2 OIL	702.00
NORTHEAST UTILITIES	WATERBURY	6.67	9.35	19.40	9.83	#2 OIL	667.00
NEW ENGLAND							
MASSACHUSETTS							
BOSTON GAS COMPANY	BOSTON	5.03	7.77	23.45	10.53	#2 OIL	686.00
CAPE COD GAS COMPANY	CAPE COD	6.34	9.71	23.45	10.48	ELECTRIC	850.00
COMMONWEALTH GAS CO.	SOUTHBORO	4.73	9.57	23.15	9.88	#2 OIL	733.00
FALL RIVER GAS COMPANY	FALL RIVER	NA	NA	NA	NA	ELECTRIC	572.00
LOWELL GAS COMPANY	LOWELL	5.20	8.12	10.08	6.12	#2 OIL	550.00
BAY STATE GAS CO.	SPRINGFIELD	5.89	8.92	23.45	8.73	#2 OIL	824.00
HAVERHILL GAS COMPANY	HAVERHILL	5.40	9.14	26.38	8.19	#2 OIL	610.00
NEW ENGLAND							
MAINE							
NORTHERN UTILITIES INC	LEWISTON	5.11	8.27	16.76	10.04	ELECTRIC	612.00
NEW ENGLAND							
NEW HAMPSHIRE							
CONCORD NAT GAS CORP	CONCORD	4.50	8.78	21.10	8.12	#2 OIL	590.00
MANCHESTER GAS COMPANY	MANCHESTER	5.30	9.28	24.91	9.50	#2 OIL	680.00
NORTHERN UTILITIES INC.	PORTSMOUTH	4.92	8.27	23.94	10.04	ELECTRIC	571.00
NEW ENGLAND							
RHODE ISLAND							
VALLEY GAS COMPANY	PAWTUCKET	6.61	9.06	NA	8.57	NA	661.00
NEW ENGLAND							
VERMONT							

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
VERMONT GAS SYSTEMS	BURLINGTON	6.27	8.27	13.77	9.28	#2 OIL	708.33
NEW ENGLAND DIVISION		5.46	8.76	20.79	9.14		702.05
MIDDLE ATLANTIC NEW JERSEY							
SOUTH JERSEY GAS CO	ATLANTIC CITY	5.37	8.20	16.68	10.37	ELECTRIC	581.00
NEW JERSEY NATURAL GAS CO.	ASBURY	4.67	9.50	NA	9.28	#2 OIL	701.00
PUBLIC SERVICE ELECT. & GAS	NEWARK	5.16	8.99	15.24	NA	#2 OIL	566.00
MIDDLE ATLANTIC NEW YORK							
BROOKLYN UNION GAS COMPANY	NEW YORK	5.58	8.99	26.14	NA	#2 OIL	683.00
CENTRAL HUDSON GAS AND E	POUGHKEEPSIE	4.43	8.27	23.74	3.85	#2 OIL	370.00
CONSOLIDATED EDISON	NEW YORK	5.31	8.13	22.10	NA	#2 OIL	626.58
NATIONAL FUEL GAS DIST. CORP	BUFFALO	3.96	8.06	14.70	9.06	#2 OIL	427.14
LONG ISLAND LIGHTING CO	LONG BEACH	4.66	8.12	24.87	10.04	#2 OIL	643.00
NEW YORK STATE E & G	ITHACA	4.00	7.48	14.65	9.17	#2 OIL	503.00
ROCHESTER GAS & ELECTRIC	ROCHESTER	4.45	8.06	11.43	8.19	ELECTRIC	499.00
ORANGE & ROCKLAND UTILITIES	CLARKSTOWN	4.12	7.91	27.73	NA	NA	492.92
COLUMBIA GAS OF N.Y.	BINGHAMTON	3.63	8.38	13.50	9.14	ELECTRIC	428.88
ST LAWRENCE GAS COMPANY	MASSENA	NA	NA	NA	NA	NA	870.00
MIDDLE ATLANTIC PENNSYLVANIA							
EQUITABLE GAS COMPANY	PITTSBURG	3.81	7.27	13.86	NA	ELECTRIC	427.00
NATIONAL FUEL GAS DIST. CORP	ERIE	3.77	7.52	16.12	8.73	#2 OIL	403.41
NORTH PENN GAS CO	RURAL	3.87	8.38	12.31	9.22	#2 OIL	532.60
PEOPLES NATURAL GAS CO	PITTSBURG	3.65	7.27	13.19	8.73	ELECTRIC	397.85
PHILADELPHIA ELECTRIC CO.	CHESTER	4.10	7.70	14.92	11.46	ELECTRIC	610.00
PHILADELPHIA GAS WORKS	PHILADELPHIA	4.66	8.63	15.24	9.50	#2 OIL	543.00
PIKE COUNTY LIGHT & POWER CO	MATAMORAS	4.02	7.91	22.10	NA	#2 OIL	485.68

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
UGI CORP	READING	4.34	7.59	14.83	8.62	#2 OIL	372.80
COLUMBIA GAS OF PENN.	PITTSBURG	3.56	8.96	10.25	6.77	ELECTRIC	428.25
MIDDLE ATLANTIC DIVISION		4.45	7.77	17.48	8.81		520.40
EAST NORTH CENTRAL — ILLINOIS							
CENTRAL ILLINOIS LIGHT CO.	PEORIA	3.18	8.42	14.51	8.02	PROPANE	337.00
CENTRAL IL PUBLIC SERVICE CO	QUINCY	3.01	7.79	9.09	7.63	ELECTRIC	306.00
ILLINOIS POWER COMPANY	DECATUR	2.80	7.14	7.77	7.06	ELECTRIC	280.00
IOWA ILLINOIS GAS CO.	ROCK ISLAND	3.39	7.19	13.18	6.55	ELECTRIC	407.48
NORTH SHORE GAS CO.	WAUKEGAN	3.92	7.76	10.92	NA	ELECTRIC	577.00
PEOPLES GAS LIGHT & COKE CO.	CHICAGO	3.85	8.04	11.56	5.23	ELECTRIC	553.00
NORTHERN ILLINOIS GAS CO.	ROCKFORD	3.32	7.79	10.79	7.33	ELECTRIC	433.00
UNITED CITIES GAS CO.	VANDALIA	3.48	7.19	13.19	7.64	ELECTRIC	350.00
EAST NORTH CENTRAL — INDIANA							
LAWRENCEBURG GAS CO., THE	LAWRENCEBURG	3.42	7.91	NA	7.43	ELECTRIC	343.00
CITIZENS GAS & COKE CO	INDIANAPOLIS	3.11	8.99	7.24	6.11	NA	320.00
HOOSIER GAS CORP	VINCENNES	3.15	8.35	13.19	7.64	ELECTRIC	330.00
INDIANA GAS COMPANY	MUNCIE	3.32	7.91	10.76	7.52	ELECTRIC	316.00
OHIO VALLEY GAS CORP.	WINCHESTER	3.25	9.28	16.12	8.19	ELECTRIC	500.00
RICHMOND GAS CORPORATION	RICHMOND	3.11	7.12	6.98	7.74	ELECTRIC	473.86
SOUTHERN INDIANA GAS	EVANSVILLE	2.90	7.84	10.52	6.99	ELECTRIC	319.00
EAST NORTH CENTRAL — MICHIGAN							
BATTLE CREEK GAS COMPANY	BATTLE CREEK	2.72	8.76	17.00	7.75	#2 OIL	438.24
CONSUMERS POWER COMPANY	FLINT	3.00	7.59	14.57	7.60	ELECTRIC	406.00
SOUTHEASTERN MICH GAS CO	PORT HURON	3.76	8.88	16.20	7.82	#2 OIL	458.50
LAKE SUPERIOR DISTRICT POWER	IRONWOOD	3.59	7.55	13.86	7.64	#2 OIL	438.00

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
CHIGAN CONSOLIDATED GAS CO	DETROIT	3.72	7.32	17.00	8.60	#2 OIL	660.00
HIGAN POWER CO.	HOLLAND	4.23	8.78	16.12	9.50	#2 OIL	487.00
MICHIGAN GAS UTILITIES CO.	MONROE	3.58	7.52	11.93	7.71	#2 OIL	468.89
WISCONSIN PUBLIC SERVICE	MENOMINCE	3.97	7.80	13.09	7.98	ELECTRIC	384.00
EAST NORTH CENTRAL							
OHIO							
CINCINNATI GAS AND ELECTRIC	CINCINNATI	3.53	7.91	10.61	7.43	ELECTRIC	379.00
DAYTON POWER & LIGHT	DAYTON	3.56	8.78	13.51	7.64	#2 OIL	457.73
EAST OHIO GAS CO.	CLEVELAND	3.73	9.04	19.90	8.18	ELECTRIC	600.60
NATIONAL FUEL GAS DIST. CORP	ANDOVER	3.77	7.52	16.12	8.73	#2 OIL	389.85
OHIO GAS COMPANY	BRYAN	3.71	7.19	16.12	6.55	ELECTRIC	550.00
RIVER GAS COMPANY	MARIETTA	3.48	7.47	13.45	8.94	ELECTRIC	365.19
TOLEDO EDISON COMPANY	DEFIANCE	3.25	7.76	16.71	7.52	ELECTRIC	380.00
WEST OHIO GAS CO.	LIMA	3.88	6.98	9.88	7.91	ELECTRIC	407.22
COLUMBIA GAS OF OHIO	COLUMBUS	3.35	8.18	9.86	6.08	ELECTRIC	423.63
EAST NORTH CENTRAL							
WISCONSIN							
LAKE SUPERIOR DISTRICT POWER	ASHLAND	3.38	7.55	13.49	7.64	#2 OIL	428.00
MADISON GAS & ELECTRIC	MADISON	4.52	7.77	13.19	7.42	#2 OIL	488.00
WISCONSIN GAS COMPANY	MILWAUKEE	4.33	8.27	13.56	7.47	#2 OIL	408.00
NORTHERN STATES POWER CO.	EAU CLAIRE	3.16	7.70	10.55	8.44	ELECTRIC	NA
SUPERIOR WATER LIGHT & POWER	SUPERIOR	3.94	7.82	14.60	7.86	#2 OIL	580.00
WISCONSIN FUEL & LIGHT CO	WAUSAU	4.18	7.17	13.19	7.48	#2 OIL	503.68
WISCONSIN POWER AND LIGHT	JANESVILLE	4.68	7.15	12.80	7.25	#2 OIL	391.63
WISCONSIN PUBLIC SERVICE	MENOMINEE	3.97	7.80	13.09	7.98	ELECTRIC	384.00
EAST NORTH CENTRAL DIVISION		3.50	7.87	12.98	7.59		462.56
WEST NORTH CENTRAL							
IOWA							

DIVISION STATE COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
WEST NORTH CENTRAL							
IOWA							
CEDAR FALLS UTILITIES	CEDAR FALLS	3.70	8.20	16.12	6.87	ELECTRIC	500.00
IOWA ELECTRIC LIGHT & POWER	AMES	2.78	8.20	19.23	6.66	#2 OIL	266.11
IOWA-ILLINOIS GAS & ELECTRIC	DAVENPORT	3.21	7.19	11.58	6.55	ELECTRIC	355.03
IOWA POWER & LIGHT	DES MOINES	3.00	8.38	8.59	6.58	ELECTRIC	388.08
IOWA PUBLIC SERVICE CO	SIOUX CITY	2.92	7.11	13.57	7.43	ELECTRIC	368.75
NORTH CENTRAL PUBLIC SERVICE	FT. MADISON	4.00	7.91	6.03	7.10	ELECTRIC	520.00
WEST NORTH CENTRAL							
KANSAS							
GAS SERVICE COMPANY	TOPEKA	2.80	7.99	11.80	7.10	ELECTRIC	336.00
KANSAS-NEBRASKA GAS COMPANY	COLBY	NA	NA	NA	NA	NA	221.00
KANSAS POWER & LIGHT CO	SALINA	1.77	7.19	11.43	6.55	ELECTRIC	176.79
WEST NORTH CENTRAL							
MINNESOTA							
CITY OF DULUTH WATER & GAS	DULUTH	3.83	8.12	15.68	7.64	#2 OIL	550.00
MONTANA-DAKOTA UTILITIES	CROOKSTON	5.83	7.12	12.02	7.97	ELECTRIC	522.00
NORTHERN STATES POWER CO.	ST. PAUL	3.89	7.63	6.96	7.86	ELECTRIC	365.00
NORTH CENTRAL PUBLIC SERVICE	COON RAPIDS	3.63	8.63	16.41	7.89	ELECTRIC	330.00
MINNESOTA GAS COMPANY	MINNEAPOLIS	3.52	8.36	9.76	5.35	#2 OIL	453.70
WEST NORTH CENTRAL							
MISSOURI							
GAS SERVICE COMPANY	KANSAS CITY	2.80	7.91	11.75	7.10	ELECTRIC	352.80
MISSOURI PUBLIC SERVICE CO	SEDALIA	2.45	7.19	7.85	6.88	NA	NA
MISSOURI UTILITIES COMPANY	CAPE GIRARDEAU	2.81	8.08	8.32	7.24	ELECTRIC	306.05
CITY UTIL. OF SPRINGFIELD	SPRINGFIELD	2.63	6.83	14.83	6.55	ELECTRIC	223.00
ASSOCIATED NATURAL GAS	STKESTON	3.23	6.04	17.67	7.43	ELECTRIC	270.00
LACLEDE GAS COMPANY	ST LOUIS	3.44	7.41	6.83	7.15	ELECTRIC	335.00
WEST NORTH CENTRAL							
NEBRASKA							
GAS SERVICE COMPANY	SEPERIOR	2.80	7.99	11.43	6.77	ELECTRIC	364.00

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
HASTINGS UTILITIES	HASTINGS	3.20	NA	16.12	NA	NA	346.00
IOWA PUBLIC SERVICE CO.	SIOUX CITY	2.93	8.63	NA	7.65	ELECTRIC	358.45
KANSAS-NEBRASKA GAS CO.	SCOTTSBLUFF	NA	NA	NA	NA	NA	288.00
METROPOLITAN UTILITIES DIST	OMAHA	2.72	6.69	12.02	6.88	ELECTRIC	435.57
NEBRASKA NATURAL GAS CO	FREMONT	3.33	8.12	14.36	6.32	#2 OIL	304.40
NORTHWESTERN PUBLIC SERVICE	GRAND ISLAND	2.38	7.91	7.03	6.55	NA	312.00
MINNESOTA GAS COMPANY	LINCOLN	4.05	7.41	12.76	6.77	ELECTRIC	491.10
WEST NORTH CENTRAL							
NORTH DAKOTA							
MONTANA-DAKOTA UTILITIES	BISMARK	3.01	8.06	11.14	7.10	PROPANE	275.00
NORTHERN STATES POWER CO.	FARGO	5.80	7.63	6.96	7.86	ELECTRIC	644.00
WEST NORTH CENTRAL							
SOUTH DAKOTA							
IOWA PUBLIC SERVICE CO	YANKTON	2.89	8.31	9.23	8.06	ELECTRIC	344.16
MONTANA-DAKOTA UTILITIES	RAPID CITY	2.98	7.04	10.26	6.66	NA	197.00
NORTHWESTERN PUBLIC SERVICE	ABERDEEN	2.97	7.99	10.26	6.11	NA	357.59
MINNESOTA GAS COMPANY	SIOUX FALLS	3.76	8.49	13.19	6.55	ELECTRIC	357.00
WEST NORTH CENTRAL DIVISION		3.14	7.73	11.64	7.00		353.66
SOUTH ATLANTIC							
DISTRICT OF COLUMBIA							
WASHINGTON GAS LIGHT COMPANY	D.C.	4.73	7.98	12.31	9.97	ELECTRIC	417.36
SOUTH ATLANTIC							
DELAWARE							
CHESAPEAKE UTILITIES CORP	DOVER	5.84	7.05	17.58	8.19	ELECTRIC	380.00
DELMARVA POWER & LIGHT CO.	WILMINGTON	5.13	8.99	12.04	8.86	ELECTRIC	366.52

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
SOUTH ATLANTIC							
FLORIDA							
FLORIDA PUBLIC UTILITIES CO.	PALM BEACH	5.17	8.56	15.53	9.96	ELECTRIC	60.00
PEOPLES GAS SYSTEM	MIAMI	3.90	7.41	15.62	10.72	ELECTRIC	48.64
SOUTH ATLANTIC							
GEORGIA							
ATLANTA GAS LIGHT	ATLANTA	3.81	7.55	16.12	7.53	ELECTRIC	273.70
GAS LIGHT CO. OF COLUMBUS	COLUMBUS	3.70	7.19	13.86	7.75	ELECTRIC	205.74
UNITED CITIES GAS CO.	GAINESVILLE	3.70	7.19	13.19	7.64	ELECTRIC	280.00
SOUTH ATLANTIC							
MARYLAND							
CHESAPEAKE UTILITIES CORP	SALISBURY	NA	7.05	17.58	8.19	ELECTRIC	440.00
BALTIMORE GAS & ELECTRIC CO.	BALTIMORE	4.61	7.55	12.46	10.37	#2 OIL	378.00
WASHINGTON GAS LIGHT COMPANY	HYATTSVILLE	4.17	7.98	12.22	9.97	ELECTRIC	411.10
COLUMBIA GAS OF MD.	CUMBERLAND	4.25	9.13	15.83	10.70	ELECTRIC	427.59
SOUTH ATLANTIC							
NORTH CAROLINA							
PIEDMONT NATURAL GAS CO.	CHARLOTTE	4.35	7.91	13.48	7.64	ELECTRIC	415.00
PUBLIC SERVICE OF N.C.	RALIEGH	4.47	8.27	15.24	8.57	ELECTRIC	435.00
UNITED CITIES GAS CO.	HENDERSONVILLE	4.30	7.19	13.19	7.64	ELECTRIC	370.00
CITY OF WILSON GAS CO.	WILSON	4.08	6.47	14.21	7.97	#2 OIL	420.67
NORTH CAROLINA NATURAL GAS	FAYETTEVILLE	4.56	8.63	14.65	6.55	ELECTRIC	270.00
SOUTH ATLANTIC							
SOUTH CAROLINA							
PIEDMONT NATURAL GAS CO.	GREENVILLE	4.15	7.91	10.26	7.64	ELECTRIC	345.00
UNITED CITIES GAS CO.	GAFFNEY	3.83	7.19	14.65	7.64	ELECTRIC	300.00
NORTH CAROLINA NATURAL GAS	COLUMBIA	4.11	NA	15.56	7.14	ELECTRIC	350.00

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
SOUTH ATLANTIC							
VIRGINIA							
CITY DANVILLE GAS	DANVILLE	3.69	7.60	11.02	7.34	ELECTRIC	207.47
PORTSMOUTH GAS COMPANY	PORTSMOUTH	3.97	8.20	17.66	7.59	ELECTRIC	272.55
CITY OF RICHMOND	RICHMOND	4.57	8.12	15.53	7.67	ELECTRIC	422.73
ROANOKE GAS COMPANY	ROANOKE	4.10	8.13	12.46	7.64	ELECTRIC	414.20
UNITED CITIES GAS CO.	BRISTOL	3.25	7.19	13.19	7.64	ELECTRIC	400.00
VIRGINIA ELECTRIC AND POWER	NORFOLK	4.22	9.50	12.31	9.61	ELECTRIC	350.00
COLUMBIA GAS OF VA.	STAUNTON	3.55	7.91	11.24	7.10	ELECTRIC	298.48
WASHINGTON GAS LIGHT COMPANY	ALEXANDRIA	4.30	7.98	12.18	9.97	ELECTRIC	361.85
SOUTH ATLANTIC							
WEST VIRGINIA							
EQUITABLE GAS COMPANY	GRAFTON	4.91	NA	NA	NA	ELECTRIC	452.00
HOPE NATURAL GAS COMPANY	PARKERSBURG	3.99	7.70	12.41	10.12	ELECTRIC	355.26
COLUMBIA GAS OF W.VA.	CHARLESTON	3.51	8.20	10.18	7.75	ELECTRIC	370.60
SOUTH ATLANTIC DIVISION		4.12	7.85	13.79	8.44		333.77
EAST SOUTH CENTRAL							
ALABAMA							
ALABAMA GAS CORP.	BIRMINGHAM	4.10	7.91	14.36	8.52	ELECTRIC	325.00
DECATUR GAS DEPT.	DECATUR	3.55	7.16	9.96	7.64	ELECTRIC	243.82
CITY OF FLORENCE GAS DEPT.	FLORENCE	4.43	8.63	11.72	6.55	ELECTRIC	215.00
SOUTHEAST ALABAMA GAS DIST.	ANDALUSIA	4.00	7.84	17.58	8.30	NA	245.00
EAST SOUTH CENTRAL							
KENTUCKY							
COLUMBIA GAS OF KENTUCKY	LEXINGTON	3.36	7.77	10.27	8.35	ELECTRIC	332.91
UNION LIGHT, HEAT & POWER	COVINGTON	3.61	7.91	10.61	7.43	ELECTRIC	393.00
EQUITABLE GAS COMPANY	RURAL	NA	NA	NA	NA	ELECTRIC	NA

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
LOUISVILLE GAS & ELECTRIC	LOUISVILLE	2.95	7.45	9.42	7.75	ELECTRIC	265.55
WESTERN KENTUCKY GAS COMPANY	OWENSBORO	2.76	4.68	11.72	7.86	ELECTRIC	373.00
DELTA NATURAL GAS CO.	WINCHESTER	5.85	8.99	8.79	10.15	ELECTRIC	620.00
EAST SOUTH CENTRAL MISSISSIPPI							
ENTEX, INC.	GULFPORT	3.45	NA	17.00	8.73	ELECTRIC	150.00
MISSISSIPPI VALLEY GAS CO.	JACKSON	3.40	6.80	17.06	7.97	ELECTRIC	220.66
EAST SOUTH CENTRAL TENNESSEE							
CHATTANOOGA GAS COMPANY	CHATTANOOGA	3.08	6.83	11.72	7.53	ELECTRIC	323.00
KNOXVILLE UTILITIES BOARD	KNOXVILLE	3.50	6.69	11.72	6.55	ELECTRIC	350.00
MEMPHIS LIGHT GAS & WATER	MEMPHIS	2.76	5.40	9.96	9.17	NA	251.00
NASHVILLE GAS COMPANY	NASHVILLE	3.01	7.27	11.23	7.75	ELECTRIC	280.00
UNITED CITIES GAS CO.	COLUMBIA	3.13	7.19	13.19	7.64	ELECTRIC	300.00
MIDDLE TENN GAS DISTRICT	SMITHVILLE	4.25	7.59	10.99	7.26	ELECTRIC	360.00
JACKSON UTILITY DIVISION	JACKSON	3.23	10.07	11.17	7.64	ELECTRIC	226.00
EAST SOUTH CENTRAL DIVISION		3.39	7.42	12.14	7.93		286.87
WEST SOUTH CENTRAL ARKANSAS							
ASSOCIATED NATURAL GAS	BLYTHEVILLE	2.95	6.21	16.06	8.77	ELECTRIC	270.00
WEST SOUTH CENTRAL LOUISIANA							
LOUISIANA GAS SERVICE CO.	GRETNA	3.67	16.47	14.86	NA	ELECTRIC	141.00
TRANS-LOUISIANA GAS CO	LAFAYETTE	4.11	NA	12.31	8.34	ELECTRIC	138.00
NEW ORLEANS PUBLIC SERVICE	NEW ORLEANS	3.07	NA	10.[illegible]	NA	NA	NA

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
ENTEX, INC.	LAKE CHARLES	3.53	NA	16.12	8.73	ELECTRIC	160.00
CITY OF VIDALIA	VIDALIA	4.97	NA	11.18	NA	ELECTRIC	400.00
WEST SOUTH CENTRAL							
OKLAHOMA							
GAS SERVICE CO.	BARTLESVILLE	2.78	7.84	11.28	6.55	ELECTRIC	305.00
LONE STAR GAS CO.	DURANT	2.24	NA	15.21	7.64	ELECTRIC	161.35
OKLAHOMA NATURAL GAS CO.	OKLAHOMA CITY	2.71	NA	9.52	6.88	ELECTRIC	191.10
SOUTHERN UNION GAS CO	BOISE CITY	2.84	4.39	21.42	8.08	ELECTRIC	205.69
WEST SOUTH CENTRAL							
TEXAS							
CITY OF CORPUS CHRISTI	CORPUS CHRISTI	4.28	NA	11.96	5.79	ELECTRIC	104.00
LONE STAR GAS CO	DALLAS	3.14	NA	15.21	7.64	ELECTRIC	225.72
CITY PUBLIC SERVICE	SAN ANTONIO	3.59	NA	13.51	7.86	ELECTRIC	112.80
SOUTHERN UNION GAS CO.	EL PASO	3.41	5.32	18.17	7.53	ELECTRIC	215.85
ENTEX, INC.	HOUSTON	3.94	NA	16.12	8.73	ELECTRIC	253.00
PIONEER NATURAL GAS CO.	LUBBOCK	3.15	NA	12.38	6.77	ELECTRIC	200.41
WEST SOUTH CENTRAL DIVISION		3.38	8.05	14.12	7.64		208.30
MOUNTAIN							
ARIZONA							
ARIZONA PUBLIC SERVICE	PHOENIX	2.34	NA	10.99	9.07	ELECTRIC	121.75
SOUTHERN UNION COMPANY	FLAGSTAFF	3.48	5.83	16.12	8.02	ELECTRIC	249.86
SOUTHWEST GAS CORP.	TUCSON	3.90	6.47	20.19	8.30	ELECTRIC	160.00
MOUNTAIN							
COLORADO							
DEPT OF PUBLIC UTILITIES	COLORADO SPRINGS	3.07	8.27	4.04	7.85	ELECTRIC	256.13

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
KANSAS-NEBRASKA GAS CO	JULESBURG	NA	NA	NA	NA	NA	285.00
PUBLIC SERV.CO.OF COLORADO	DENVER	2.71	6.86	16.89	6.79	ELECTRIC	276.23
MOUNTAIN / IDAHO							
WASHINGTON WATER POWER CO	LEWISTON	4.74	8.19	6.09	7.51	#2 OIL	427.30
INTERMOUNTAIN GAS CO	BOISE	5.71	7.91	8.21	8.18	ELECTRIC	389.00
MOUNTAIN / MONTANA							
GREAT FALLS GAS COMPANY	GREAT FALLS	3.51	7.84	7.33	6.99	ELECTRIC	256.17
MONTANA-DAKOTA UTILITIES	BILLINGS	2.36	7.27	8.65	7.42	PROPANE	197.00
MONTANA POWER COMPANY	BUTTE	4.07	NA	8.64	NA	ELECTRIC	388.38
MOUNTAIN / NEW MEXICO							
SOUTHERN UNION GAS CO.	ALBUQUERQUE	3.98	4.82	19.05	7.19	ELECTRIC	283.77
MOUNTAIN / NEVADA							
SIERRA-PACIFIC POWER CO.	RENO	NA	NA	NA	NA	ELECTRIC	527.04
SOUTHWEST GAS CORP.	LAS VEGAS	3.17	6.33	11.43	9.28	ELECTRIC	170.00
MOUNTAIN / UTAH							
MOUNTAIN FUEL SUPPLY	SALT LAKE CITY	2.49	6.96	13.04	8.68	ELECTRIC	322.00
MOUNTAIN / WYOMING							

DIVISION / STATE / COMPANY	PRINCIPAL CITY SERVED	ALL PRICES IN DOLLARS PER MILLION BTU AS OF DECEMBER 31 — NATURAL GAS	FUEL OIL NO. 2	ELECTRIC	PROPANE	PRINCIPAL COMPETITIVE FUEL	AVERAGE ANNUAL GAS HTG BILL($)
KANSAS NEBRASKA NATURAL GAS	DOUGLAS	NA	NA	NA	NA	NA	316.00
MONTANA-DAKOTA UTILITIES CO	SHERIDAN	2.61	8.09	5.16	6.66	ELECTRIC	223.00
MOUNTAIN FUEL SUPPLY CO	ROCK SPRINGS	2.25	7.77	7.63	7.33	ELECTRIC	398.00
WYOMING GAS COMPANY	WORLAND	3.40	8.27	9.44	7.75	ELECTRIC	329.80
NORTHERN GAS DIVISION	CASPER	3.20	NA	7.91	NA	ELECTRIC	465.00
MOUNTAIN DIVISION		3.08	7.21	10.64	7.80		265.37
PACIFIC ALASKA							
ALASKA GAS SERVICE CO.	ANCHORAGE	1.55	9.71	9.38	12.23	ELECTRIC	198.00
PACIFIC CALIFORNIA							
LONG BEACH GAS DEPT	LONG BEACH	3.03	NA	14.77	8.19	ELECTRIC	111.74
PACIFIC GAS & ELECTRIC	SAN FRANCISCO	NA	NA	NA	NA	#2 OIL	203.52
SOUTHWEST GAS CORP.	VICTORVILLE	4.96	7.05	21.98	8.95	ELECTRIC	220.00
SOUTHERN CALIFORNIA GAS CO.	LOS ANGELES	3.62	6.66	19.34	7.30	ELECTRIC	181.00
PACIFIC OREGON							
NORTHWEST NATURAL GAS CO.	PORTLAND	5.40	7.40	9.82	9.27	ELECTRIC	260.00
CASCADE NATURAL GAS	BEND	5.20	7.91	9.67	8.73	ELECTRIC	433.97
PACIFIC WASHINGTON							
NORTHWEST NATURAL GAS	VANCOUVER	5.20	NA	NA	NA	ELECTRIC	260.00
WASHINGTON WATER POWER CO	SPOKANE	4.69	8.19	5.64	7.51	#2 OIL	514.50
CASCADE NATURAL GAS CORP	TACOMA	5.20	7.91	7.33	8.73	ELECTRIC	371.28
WASHINGTON NATURAL GAS CO.	SEATTLE	5.14	7.55	5.95	NA	ELECTRIC	407.00
PACIFIC DIVISION		3.80	7.80	11.54	8.86		203.03